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ESTABLISHED 1869—BANKERS: ALLIANCE (Limited).



# THE DE BEER'S MINING COMPANY, LIMITED.

Report of the Directors of the De Beer's Mining Company, Limited, at the Annual General Meeting of Shareholders, held at the Company's Offices, De Beer's, on the 7th May, 1883.

GENTLEMEN,—Your directors beg to submit their report on the affairs of the company, with a statement of accounts for the year ending March 31, 1883, showing a nett profit of £5654 8s. 7d., after distributing £37,714 10s. in the payment of dividends, and after expending on new machinery £7108 2s. 5d., and an amount of £19,467 9s. 7d. for the removal of floating reef.

## FLOATING REEF.

During the year there have been removed 143,369 16 cubic feet loads of floating reef (130,370 by this company, and 12,999 by neighbouring claimholders), at a cost of £19,467 9s. 7d., by which your directors consider that 8½ claims have been freed from shale, giving at the present time 52 productive claims, and a balance of 32½ claims still to be cleared, which shows an increase of £6500 per claim cleared, according to the last mining board assessment.

After careful consideration your directors have decided to write off to profit and loss account the whole of the past year's expenditure, as well as the sum of £12,041 0s. 10d., which appeared as an asset in last year's statement.

## MACHINERY.

The expenditure on new machinery in the year has been £7108 2s. 5d., including the hauling-gear sanctioned by the shareholders at the last annual meeting, and upon maintenance of machinery £7991 11s. 1d. On turning to the account it will be seen that the whole of the maintenance has been written off to profit and loss, and that £3108 2s. 5d., equal to about 10 per cent., has been written off permanent machinery for wear and tear. The whole of the machinery, property, and plant of the company has been carefully re-valued, and a statement of the same will be found in the schedule appended to this report, amounting to £28,000, which is carried forward to the debit of the account. The shareholders' resolution at the last annual meeting that £1000 be expended monthly on machinery and plant from Oct. 1 last, though not strictly adhered to, owing to the heavy fall in diamonds commencing from that month, has been practically carried out under the head of machinery, both permanent and maintenance.

## PUMPING CONTRACT.

The working of this contract has been carried on to the satisfaction of all parties.

## DIAMONDS.

It is a matter of regret that the very severe fall in the diamond market during the last six months of the year has prevented your directors' anticipations as to the yield per load being realised, but the company's improved position will be apparent by comparison of this with last year's results, as it will be seen that during the year to March 31, 1882, 96,439 loads ground washed yielded 76,859 carats diamonds, realising £104,552 8s. 8d., whilst during the past year 166,436 loads washed yielded 149,396 carats, realising £158,675 4s. 3d., showing nearly twice the output and an improved quality of ground in the better average weight per load. The following is a summary of work done during the year:—

Blue ground on floors April 1, 1882 ... 3,000 16 cubic ft. loads.  
Do. deposited do. to March 31, 1883 ... 179,785 " "

Blue ground washed April 1, 1882, to March 31, 1883, 180,582  
floors loads estimated at ... 166,136 " "  
(Discount of 8 per cent. being allowed for difference)

Leaving a balance on floors of ... 16,649  
representing a cost, including rates, of about 5s. per load, or £4000; which, however, with the cost of spreading lumps as given below, your directors have not considered right to include in the balance-sheet although a distinct asset of the company.

The ground washed produced 149,396 carats diamonds, realising £158,675 4s. 3d., giving in spite of a fall of about 40 per cent. in the diamond market, an average yield of 19s. 1½d. per load. The above weight includes 22,766 carats fine sand (17,032 carats found by the company, and 5724 carats found on percentage). Besides the balance of blue ground as above, the company has 25,000 loads lumps spread out on its floors, representing a cost of £1250, which are producing an average of two-fifths of a carat per load, showing that the ground, after allowing a percentage for black reef and high ground, has averaged for the year at least a carat per load.

The cost of production, including rates, maintenance, and wear and tear of machinery, has been 11s. 9½d. per load, leaving a profit of 7s. 3½d. per load. The following tables are given for your information:—

BLUE GROUND.			FLOATING REEF.			WASHING.		RESULTS.		AVERAGE PRICE.	
Geary.	No. of actual Working Days.	No. of Loads Hauled.	Geary.	No. of actual Working Days.	No. of Loads Hauled.	No. of actual Working Days.	No. of Loads Washed.	Diamonds in Carats.	Proceeds.	Average per Load.	Average per Carat.
No.			No.						£ s. d.		
1	137	42,225	1	143	49,539						
2	157	63,943	2	81	36,819						
3	187	55,482	3	108	36,654						
4	53	18,135	4	124	7,190						
			5	4	168						
4	312	179,785	5	287	130,370	305	166,136	149,396	158,675 4 3	19 1/4	21 3/4

Month.	No. of actual Working Days.	Diamonds Found in Carats.	Proceeds.	Average per Carat.	Month.	No. of actual Working Days.	Diamonds Found in Carats.	Proceeds.	Average per Carat.
1882.			£ s. d.	s. d.	1882.			£ s. d.	s. d.
April ...	24	8,332	15,352 12 6	29 8	Oct. ...	26	14,676	15,252 6 0	21 1
May ...	26	9,604	12,541 14 6	24 0	Nov. ...	25	14,718½	13,910 12 6	18 11
June ...	26	8,751	12,075 0 0	27 6	Dec. ...	25	14,488	12,305 19 6	17 0
July ...	24	10,286	12,488 8 6	24 3	Jan. '83	26	15,459	12,999 5 9	16 9
August ...	26	13,217	16,574 19 0	25 0	Feb. ...	24	13,198	8,531 13 4	12 11
Sept. ...	26	12,152½	16,146 18 2	26 7	March..	27	14,722½	13,495 14 8	18 4
Total ...	152	62,342½	85,179 12 8	27 4	Total ...	153	87,053½	76,495 11 9	17 8

## SEARCHING SYSTEM.

The adoption of this system has caused a marked improvement in the company's finds. During the month of February before the men were searched, the company's finds were in the claims, 658½ carats, and on the floors, 1108½ carats, whereas during the month of March, when the system had been put in force they were in the claims 1234 carats, and on the floors 1530½ carats, making a total increase in the latter month of 998½ carats.

## LEGAL.

Your directors have to report that, with regard to an action instituted by this company in June, 1881, against the Victoria Diamond Mining Company for damages sustained by reason of the flooding of this company's claims, judgment has been obtained against the defendant company for £990, with costs of suit, against which decision, however, an appeal has been noted.

## DIVIDENDS.

During the year, as shown in the statement, £37,714 10s. has been paid in dividends, of which the sum of £7071 13s. 4d. was devoted to pay a liability of the Original De Beer's Mining Company—(before the amalgamation in March, 1881, with the firm of Stow, English, and Compton)—to the Cape of Good Hope Bank for monies advanced, this amount being equal to 1½ per cent. on £424,300, the amount allotted in shares in the amalgamated company to the original shareholders.

There is still a similar liability to the extent of about £1200 due to the London and South African Diamond Mining Company and others, against which there is an asset belonging to holders of original shares in the old company of 2700 £10 shares fully paid up, in the London and South African Diamond Mining Company, their present value being about £1500; and also Scrip in the International Diamond Mining Company to the extent of £63,627 11s. 6d., which, however, your directors consider of little value.

## INDIRECT LIABILITIES.

It must be apparent that any statement of a company's position should include the financial position of its Mining Board, especially as this company's interest in the mine (De Beer's) represents about one-third of its assessed value. The De Beer's Mining Board is not only free from liability but has a surplus of about £7000, as will be seen from the subjoined statement:—

De Beer's Mine, April 30, 1883

ASSETS.		
Arrear rates ...	£13,099	0 0
Balance in bank ...	3,313	7 3
	£16,412	7 3
LIABILITIES.		
Bills payable ...	£ 6,076	3 8
E. Jones, Reef (say) ...	520	0 0
Companies' Reef ...	577	5 0
Graham and Haarhoff (say) ...	600	0 0
Salaries ...	177	0 0
	7,950	8 8
	£ 8,461	17 7

I consider the Arrear Rates as good, and allowing £1000 to Victoria Company for reef, there will still be a balance to the good of (say) £7000.

(Signed) J. C. H. BOURHILL, Treasurer,  
De Beer's Mining Board.

April 28, 1880.

## DE BEER'S MINE—MONTHLY RATES.

Section.	Assessment.	Number of Claims.	General Rate.	Reef Rate.
A I.	£557,736 11 2	85 & 676 5-6 sq. ft.	£464 15 7	£1161 19 0
A II.	427,123 5 3	67 & 192 73-112 "	355 18 9	1334 15 2
B.	364,125 0 0	142 & 720 ½ "	303 8 9	379 5 11
C.	408,000 0 0	111 & 640 ½ "	340 0 0	425 0 0
D.	225,500 0 0	187 "	187 18 4	
Total .....	£1,982,484 16 5	594 & 308 101-112 "	£1652 1 5	£3301 0 1

De Beer's, May 5, 1883.

(Signed) J. H. W. RAUSCH, Mining Overseer.

The above shows that the rates levied monthly on the mine amount to £4953 1s. 6d., of which this company contributes £1615 19s. 10d.

## FUTURE WORKING.

Your directors have just completed a contract with Messrs. James and Co. for an output of 700 loads blue ground per diem to Dec. 31, 1883. The average output of the company during the past year has been 576 loads per diem. Owing to the larger area of workable ground this increased output will now be obtained, and your directors feel confident that, with diamonds even at their present low rates, fair dividends may be expected. Your directors have also arranged with the above contractors for a daily output of 500 loads of floating reef, at a total cost of 1s. 9d. per load.

In conclusion, your directors beg to refer you to the statement of accounts herewith.

C. J. RHODES, Chairman.  
C. D. RUDD,  
FRED. S. P. STOW,  
ROBT. ENGLISH,  
H. W. H. DUNSMURE, } Directors.

Kimberley, March 31, 1883.

## THE DE BEER'S MINING COMPANY (LIMITED).

BALANCE-SHEET, March 31, 1883.

DR.	LIABILITIES.	ASSETS.	CR.
To Capital account—		By Claim account—	
65,555 shares of £10 each,		" For 84 and 701 square feet	
fully paid ...	£665,550 0 0	claims, valued at ...	£645,550 0 0
" Bills payable ...	5,683 14 11	" *Machinery account—	
" Cash due to manager ...	315 2 3	For machinery, property,	
" Unclaimed dividend ...	104 6 8	and plant, valued at ...	28,000 0 0
" London account—		" Sundry debtors ...	351 7 4
Drafts against diamonds		" Diamonds shipped to London—	
shipped ...	5,000 0 0	6926 carats, valued at ...	6,951 1 2
" Sundry creditors ...	635 6 11	" Diamond suspense account—	
" Balance of profit and loss ...	5,654 8 7	For 853½ carats diamonds	
		on hand, since sold for ...	738 12 6
		" Cape of Good Hope Bank—	
		For cash balance in hand ...	1,351 18 4
			£682,942 19 4
		*Old account... £24,000 0 0	
		New account... 7,108 2 5	
		£31,108 2 5	
		Less depreciation 3,108 2 5	
		£28,000 0 0 as per schedule.	

We certify that we have examined the books, compared the vouchers, and checked the balances of the De Beer's Mining Company (Limited), and that the above statement is true and correct.

C. J. RHODES, Chairman.

W. H. CRAVEN, } Auditors.

N. E. PICKERING, Secretary.

Kimberley, March 31, 1883.

## PROFIT AND LOSS ACCOUNT.

From April 1, 1882, to March 31, 1883.

DR.	CR.
To Dividend account—	By Balance from last year ...
5½ per cent. paid during year ..	£ 14,298 12 6
" Floating Reef account—	" Diamond account—
Balance of this account,	For proceeds of sale of
April 1, 1882... £12,041 0 10	149,396 carats diamonds ...
Amount expended	158,675 4 3
from April 1, '82,	" Pumping contract—
to March 31, '83, 19,467 9 7	For amount received from
	De Beer's Mining Board for
	pumping in mine ...
	10,800 0 0
" Fuel account ...	
" Interest account... 803 17 6	
" Machinery account—	
Maintenance ... £7,991 11 1	
Permanent, say	
10 per cent. off	
£31,108 2s. 5d.	
for depreciation 3,108 2 5	
	11,099 13 6
" Produce account ...	
" Rates and licenses ...	4,371 10 6
" Working expenses ...	19,346 15 8
" Balance of profit ...	64,416 17 9
	5,654 8 7
	£183,773 16 9

We certify that we have examined the books, compared the Vouchers, and checked the balances of the De Beer's Mining Company (Limited), and that the above statement is true and correct.

W. H. CRAVEN, } Auditors.

C. J. RHODES, Chairman.

Kimberley, March 31, 1883.

## SUPPLEMENTARY REPORT.

Your directors are pleased to report that the result of the company's work since the above statement shows at the present time after payment of working expenses:—

Cash on hand ...	£589 10 3
Diamonds on hand, 8448 carats (say) ...	8,448 0 0
Balance due for diamonds shipped to London ...	1,450 0 0

Kimberley, May 7, 1883.

Total ... £10,487 10 3

C. J. RHODES, Chairman.  
C. D. RUDD,  
FRED. S. P. STOW,  
ROBT. ENGLISH,  
H. W. H. DUNSMURE, } Directors.

ISSUE OF 10 PER CENT. FIRST MORTGAGE DEBENTURES AT PAR, REDEEMABLE AT 20 PER CENT. PREMIUM.

MORE THAN ONE-THIRD OF THE AMOUNT HAS ALREADY BEEN APPLIED FOR.

# THE GOLD HILL MINES, LIMITED.

CAPITAL £140,000, IN SHARES OF £1 EACH.

Divided into 102,562 Ordinary Shares of £1 each, and 37,438 Preference Shares of £1 each. Of which all the Ordinary Shares and 9159 Preference Shares have been issued.

CREATION OF £25,000 TEN PER CENT. FIRST MORTGAGE DEBENTURES, redeemable in Five Years, exchangeable into Preference Shares at any time until redeemed at the option of the Holder.

Issue of £15,000 Debentures, part of the above, in Debentures of £25, £50, £100, and £500 each.  
Price of issue Par, redeemable at 20 per cent. premium.

## DIRECTORS

Col. W. M. COCHRANE, CHAIRMAN.

J. E. NAYLOR, Esq., DEPUTY-CHAIRMAN.

H. NELSON, Esq.

R. S. ARCHBOLD, Esq.

T. TURNER, Esq.

THOMAS TREGELLAS, Esq.

RESIDENT DIRECTOR IN AMERICA—M. L. HOLMES, Esq.

MANAGER IN AMERICA—W. TRELOAR, Esq.

SECRETARY—G. C. HARVEY, Esq.

Applications are invited for £15,000, part of £25,000, Ten per cent. First Mortgage Debentures, the repayment of which will be secured by a deed of trust, vesting in trustees the freehold and other property of the company for the benefit of the debenture-holders.

The debentures are issued to pay off existing liabilities, to erect additional stamps, and to develop the mines on a larger scale.

The properties comprised in the deed of trust are the freehold estate and mines, consisting of upwards of 1000 acres, with the plant and machinery thereon.

The company has, during the past 12 months, been engaged in re-opening the Randolph Mine, which has now been pumped dry to a depth of over 700 feet; and from advices received (dated May 16),

the manager expected to commence operations upon the big sulphuret vein at the 600 feet level in about a week from that date. By advices just received, dated May 23, the manager states:—"The big sulphuret vein at the 600 feet level presents the most favourable spot at our command at present for quarrying ore and obtaining produce; every effort, therefore, is being made to get fairly to work here as early as possible, so as to be able to run the stamps night and day."

In order, however, to carry on operations on a large scale, it is necessary that additional heads of stamps should be erected at once and further machinery obtained. The amount paid by the company for the properties is £90,000, and during the last two years there has been expended on them about £24,000. The debentures are there-

fore a charge in priority to £111,721 share capital issued, and the directors feel confident that with the capital provided by the present issue of debentures the mines will become largely remunerative within the present year.

In this, the directors' opinion is strengthened by the report of the Chairman of the company, who lately returned from the mines, after a residence on the property of three months.

The reports received from the manager, since the Chairman left, confirming his opinion, can be seen at the offices of the company.

Samples of ores, taken indiscriminately by the Chairman, were assayed by Messrs. Johnson, Matthey, and Co., of London, and gave the following results:—

## PRODUCE OF GOLD.

No.	1	2	9	13	20	12	10	4	17	8	No. 22	28	31	34	2	2	6	905
ozs.																		

Per ton of 20 cwts. of Ore.

The total interest required for the whole issue of the debentures is only £2500 per annum; or, with a sinking fund of £4000 per annum, £6500, less than one-fifteenth of the undermentioned estimated revenue.

It will be seen, therefore, that taking into consideration the security offered, the rate of interest, the bonus on redemption, the forward state of the mines, and the option of conversion into preference shares, the investment now offered presents advantages seldom obtainable on a mining security.

With reference to the estimate of revenue, the directors beg to give that made by Mr. Treloar, the company's manager, on the formation of the company in April, 1881, which is as follows:—

Returns—43,200 tons of ore at 1 oz. of gold per ton, at £3 15s. per oz. £162,000  
Cost—Cost of working, as per estimate 65,000

Annual profit £97,000  
He further states that this return—large as it is—would be still

further increased by all the ore which yields above 1 oz. to the ton, and he adds:—

"Randolph's lode runs about 680 fms. through the estate, almost entire, and in places it may be found still more productive than where it has been worked upon; therefore, taking the length of this lode at 600 fms. only, the depth 150 fms., and average width 4 ft., and a cubic fathom 20 tons, this lode alone would take about 27 years to work out; but there is the Barnhardt and other lodes running through the property, which are also almost entire, and probably would yield a larger quantity of ore than the Randolph."

The debentures will be issued at par for sums of £25, £50, £100, and £500 each, made payable to the registered holder, and carrying interest from the dates upon which the several instalments are paid, at the rate of 10 per cent. per annum, payable half-yearly on the 30th December and 30th June, at Messrs. Brown, Janson, and Co., Bankers, 32, Abchurch-lane. The first payment will be made on the 30th December next.

The bonds are redeemable in five years—viz., on 1st July, 1888, and the trust deed provides that one-half of the profits in each year up to £4000 shall be set aside to pay off the debentures at 20 per cent. premium at the expiration of the five years, or at any time prior to that date.

The price of subscription is par, payable as follows:—

£5 on each £100 applied for, payable on Application.  
£20 " " allotted, " on Allotment.  
£25 " " " " on 15th September.  
£25 " " " " on 15th November.  
£25 " " " " on 15th December.

Applicants will have the option of paying up in full on allotment under discount on the prepayments at the rate of 10 per cent. per annum.

Where no allotment is made the deposit will be returned in full. In case a less number of debentures is allotted than is applied for, the excess of the deposit will be applied in or towards payment of the future instalments due upon such number as may be allotted.

Applications on the annexed form should be filled up and sent to the Company's Bankers, Messrs. Brown, Janson, and Company, 32, Abchurch-lane, London, E.C., accompanied by a deposit of 5 per cent. upon each £100 of debentures applied for.

Prospectuses and forms of application can be had on application by letter or personally of the undersigned.

By order of the Board of Directors.

G. C. HARVEY, Secretary.

36 to 39, Palmerston Buildings,  
Old Broad-street, London, E.C., 23rd June, 1883.

The LISTS OF APPLICATION will be CLOSED on SATURDAY, 30th inst.



## Meetings of Public Companies.

## EAST BLUE HILLS.

A general meeting of shareholders was held at the offices of the company, Gracechurch Buildings, Gracechurch-street, on Tuesday, Mr. J. Y. WATSON in the chair.

Mr. C. B. PARRY (the secretary) read the notice convening the meeting. The minutes of the preceding meeting were read and confirmed.

The CHAIRMAN said: Gentlemen, the accounts to be presented to-day show a balance of assets over liabilities of 1167l. 13s. 5d. We have sold altogether tin to the value of 2159l. 8s. 2d. In the present accounts 26 tons 13 cwt. are credited for 1452l. 10s. 10d. Our early sales were from tin stamped (by permission) at Blue Hills Mine; but when we could have the use of their stamps no longer we had to erect two water-wheels ourselves, one with four and the other with six heads of stamps; we have also built another wheel to drive 12 heads in the winter months. These erections have cost the company about 4000l.; and the decline in the price of tin has been about 120l. on our sales; these, with the interference with our sales for three months, at least, during the erection of the wheels, more than account for the difference between our present balance and that at the last meeting. Our last month's sale left a profit on the working cost of about 60l. The previous month's sale left a profit. The accounts of the company are audited every month by the committee, when all bills and royalties are paid up close; so that beyond the current monthly expenses at the mine, there is not a single liability upon it. At present, owing to the very dry weather, we are rather short of water, and are stamping our best work and stacking the poorer till the rainy season; the best work is very rich, as much as 4 cwt. of tin to the ton. At our last meeting we had a rich lode of tin in the 40 upon which certain calculations were based, but this point has not turned out equal to expectation. I would here remind you that all our works are above the adit level, and looking at the quantity of tin sold in so short a time, and with such a small outlay, there is scarcely, as the purser has reminded me, a parallel case in Cornwall. And looking at the quantity of ore ground gone over above the adit level the question here arises, why not go deeper? And this can be done either by employing a portable engine or erecting a permanent one. On this head, Mr. Danz, the Cornish banker and tin smelter, who has been a large shareholder in East Blue Hills from the commencement, writes:—"As a shareholder I venture to call the attention of the executive to the desirability of sinking below the present adit level so as to prove the mine in depth, and lay open a large extent of ground. To do this no doubt a small engine would be necessary for pumping, but the cost of same need not be heavy, and the profits of the mine would contribute to its erection. I may add there is already a shaft upon which an engine could be erected—and after being cleaned and communicated with the adit, it could be sunk below on the best part of the lode. All this could, with a small expenditure of money, and in comparatively a short time, I should think it might all be done with about 5000l., and if we can go on working at a profit until the work is complete we can afford the outlay out of our capital, and may soon have a great mine, for the purser will tell you that the great riches of the adjoining mines of which he is also purser (Blue Hills and Penhalls) were all made below the adit. In conclusion, the Chairman said that Mr. Pike, the purser, was present, and would be happy to answer any questions."

Mr. WALTER PIKE said:—Gentlemen, Mr. Watson has clearly stated to you what has been accomplished in this mine in working above the adit level, and that from that level alone nearly 40 tons of tin have been raised and sold. From this it is evident that we are warranted in sinking as with another level as productive as the adit has proved we should have a good mine. In the neighbouring mine of Blue Hills very little mineral was raised until a depth of 30 fms. below adit was reached, and in this level a continuously productive lode for over 150 fms. in length was found from which large quantities of tin were raised. In our mine the lode has been productive to surface, and the whole of the ground passed through in the adit level will pay to stoop. From this we may expect that in sinking, say, 10 fms. and driving another level, a large amount of profitable tin ground will be laid open. He suggested that an engine should be put up, which would cost about 5000l.

The CHAIRMAN said they had plenty of money in hand to do this with.

Mr. PARRY then read the agents' report, as follows:—  
June 16.—Since our last general meeting the adit east end has been further extended on the course of the lode 30 fms. Some distance of this was through good paying tin ground, varying in value from 6l. to 10l. per fathom; the last few fathoms driving, however, has not been so productive, and the ground much easier for driving; probably this may have had some influence on its productivity, yet the lode continues of a promising kind; the present end is now in harder strata, and we expect the lode will soon improve in value. The 40 east end has been further extended 27 fms., through ground producing low quality tinstuff. The lode being split at this level, going east the part has been smaller than usual, and more so than is found at the adit level just under this ground; for several fathoms the end has been driven on the south part, which is inclining towards the north, and will again soon form a junction with the other part, when it will doubtless improve. The 30 fm. level has been extended some 5 fms. beyond the old bread of ground, the lode being 1½ ft. wide, and producing occasionally some good tinstuff. The shaft a few fathoms ahead of this end is supposed to be sunk to this level, and it is supposed that a few fathoms east of this end a rich bunch of tin was worked by the former workers. In the stopping department the tin ground passed through at the 40 did not continue so productive as we were led to expect in opening out; this and some delay from various causes in getting the stamps to work necessarily interfered with the returns of tin, and whilst the cost was going on during that time the working resulted in a loss. Since the commencement of this year, however, we have done better, and have shown a profit. During the summer months we shall be unable to stamp all the tinstuff raised; we propose, however, to continue the stamps and stop the produce till the winter, when we shall work the 20 heads as able to stamp and return the accumulated tinstuff. Although only above the adit level we have already returned upwards of 2000l. worth of tin, which augurs well for future success. We have very good stopping ground at present being worked in the back of the adit for a length of about 25 fms. The old shaft referred to as sunk to the 30 is just over these stopes, and could be easily continued down to the adit level. As we have passed over an excellent lode in the bottom of this level we should strongly advise the adventurers to clear the shaft, continue it down to the adit level, and then sink below. This could be done at a comparatively cheap rate, either by erecting a small pumping-engine or by making a temporary trial by a portable engine. Another level equal in value to what has been passed through in the adit would ensure the success of the mine.—S. BENNETT, W. K. MITCHELL.

A SHAREHOLDER said the sooner it was erected the better.

The CHAIRMAN: A very small engine will do; we have only to pump the water up to the adit level, which is the 50 fm. level.—Mr. PARRY said he fully agreed that a small engine should be erected to prove the ground.

The CHAIRMAN moved that the accounts and the agent's report be received and approved.—Mr. O. WEBB seconded the motion, which was carried.

Some conversation ensued regarding the erection of the steam-engine referred to, and eventually it was decided to leave the matter in the hands of the committee, the Chairman observing that the committee hoped in the meantime the mine would go on making profits, and the shareholders would observe that there was 1100l. in hand.

Mr. PARRY said he believed they could thoroughly erect the engine and get it into working order in six months.

Mr. PIKE, in reply to a SHAREHOLDER, said he had no doubt whatever that the West Kitty lode ran through East Blue Hills.—The meeting then broke up.

## NORTH BLUE HILLS.

A general meeting of shareholders was held at the offices of the company, Gracechurch Buildings, Gracechurch-street, on Tuesday, Mr. J. Y. WATSON in the chair.

Mr. C. B. PARRY (the secretary) read the notice calling the meeting.

The CHAIRMAN said:—This is an off-shoot of the East Blue Hills, and quite in its infancy. The accounts here show a balance of 796l. 7s. 10d., after paying for portable engine and every liability on the mine. Its situation, adjoining East Blue Hills, and near to Perran St. George, formerly one of the richest copper mines in Cornwall, is very favourable. About nine months since we commenced clearing an old adit, which proved rather tedious work. When cleaned the lode was found to be worked by a cross-course. We then put out a cross-cut north, which communicated with a shaft sunk on a copper lode. Men who worked at this shaft 40 years ago say that it was sunk about 15 fms. below adit by aid of a horse drawing the water, and a good lode of copper was discovered; the winter's water proved too much for the horse, and the work was stopped. This lode, which was seen at the adit 22 fms. from surface is a strong one with copper and tin, is parallel and close by the elvan course, which made the riches of Perran St. George. We, therefore, purchased a portable engine, and erected it on the shaft. This engine will go to work this week, and within a month we hope to see the lode at the bottom of the shaft.

Mr. PIKE said there were people in the neighbourhood who could remember that 30 or 40 years ago the lode in the shaft yielded rich ore, but the one-horse contrivance which was then employed to get it was inefficient for the purpose. The other day he was enabled to obtain cheap eight-horse power engine, in excellent condition. The appearance of the lode led to the belief that they would get something good. The Perran St. George Mine made great riches in the north. In the elvan course there was the promise of making something good. With the engine they could go 20 fms. deeper, and perhaps more.

The CHAIRMAN said he remembered Perran St. George was the richest mine in the neighbourhood, with the copper of a rich quality.

Mr. PIKE said the mine was close to the Oligueta Point, in St. Anne's, one of the richest parts of the district.

Mr. PARRY read the agent's report, as follows:—

June 16.—We commenced operations in this shaft last September, by employing men to clear out the adit level, which had been driven by former workers, in order to ascertain the character and bearing of the lode. The first lode explored was a tin lode, and of a promising kind, but not of a sufficient depth to produce much mineral. About 100 fms. from the mouth of the adit we found a cross-cut had been driven north 40 fms., and communicated with the engine-shaft sunk on a copper lode—as we learn from men who had worked there some 40 years ago—and that the shaft had been sunk about 15 fms. below the adit by means of a horse-engine, and that a good lode of copper had been met with, from which a pile of copper had been raised, but the water having overpowered the horse-engine no further explorations were made. We have been fortunate enough to purchase an eight-horse power portable engine, with pitwork, &c., all complete, and which when fixed and at work will not cost over 1000l. We expect in less than a month to pump the water out from the shaft, and see the lode at the bottom. We may mention that about 12 fms. to the north of the lode there is the celebrated elvan course, in conjunction with which all the rich bunches of

copper ore were found in the adjoining mine of Perran St. George. By continuing to sink the shaft we shall in course of sinking reach the junction of the upper lode, which underlies south, and the tin lode above referred to, which has a north underlie. We consider the prospects of the mine very encouraging. It can be worked at a very cheap rate, and the probability of meeting with copper ore at a comparatively shallow depth are also most encouraging.—S. BENNETT.

The CHAIRMAN moved the adoption of the accounts and the agent's report. Mr. O. WEBB seconded the motion, which was carried. On the motion of Mr. O. WEBB, seconded by Mr. PETT, a formal resolution was passed indemnifying Mr. Watson and Mr. Pike from all liability as lessors. A vote of thanks to the Chairman closed the proceedings.

## WHEAL HONY AND TRELAUNY UNITED SILVER-LEAD MINING COMPANY.

The third ordinary general meeting of shareholders was held at the offices, Bartholomew-lane, on Thursday. In the absence of Mr. B. G. Goldsmid, the chair was occupied by Mr. KEPPEL GARNIER.

Mr. H. E. LEWIS (the secretary) read the notice calling the meeting, and the report and accounts were taken as read.

The CHAIRMAN said he would not make many remarks upon the balance-sheet, nor upon the technical part of the subject, because Mr. Derry, the agent, and Mr. Loam, the consulting engineer, were both present, and would be able to give the fullest information upon all points. But probably the shareholders would like to hear something about the opinion of the directors regarding the property. He would state—and in saying this he would state not only his own opinion, but the opinion of his brother directors—that every prophecy regarding the amount of silver-lead contained in Wheal Hony would be proved to be true, and that it contained as much silver-lead as any of the adjoining mines from which large returns have been made. No mine was better proved than Wheal Hony before it was taken over by the present shareholders. It was one of a series of rich mines which adjoined, and it would be wonderful if it were not rich. Within the last month or six weeks the lode had been discovered almost in the centre of the set. That was the discovery alluded to in the reports of Captain Thomas and Captain Rich. Since then the accounts from the mine are satisfactory. Not only were the walls very well defined, but there was also some very excellent silver-lead ore. The whole configuration of the ground and the characteristics of the strata were almost identical with that particular portion of Treveltha where the richest silver ore was taken from, and which averaged, some of it, 80 ozs. of silver to the ton. The ore which was cut there was cut close to the surface, and in Wheal Hony, at Lewis' shaft, it had been cut within 10 fms. of the same place. That was the chief point of interest in the mine at the present moment. They had also been stopping in the 108, whence they had taken from 8000l. to 9000l. worth of ore, which had been sold, and they had also about 50 tons at surface in the dredge. One of the characteristics of the lode seems to be that it is not pinched out. They had been driving in the 108 level. They had had to drive 10 or 20 fathoms or more through unproductive ground, and they came to hard poor ground; this had been passed through, and the end was now streaming out water, which was a good sign, and there was no doubt they had the lode again at the end of the 108 fathom level. Those were the chief points at the present moment. There were two predictions which had been made which had not turned out so successfully as was anticipated, and that was the time and the amount of capital required to sink the shaft to a depth of 200 fms. It was very easy to say after the event, and it had been said by one or two people lately that if they had put the engine-house at Lewis' shaft, and gone down, they would have paid a dividend 12 months ago, instead of being in the position they were at the present moment. All he could say was that the board at the commencement of the company took the greatest possible pains, and the best possible advice, to ascertain the best way of developing the mine. Amongst others, Capt. Joseph Thomas was called in, and the result of the consultation was that the directors determined to utilise Smith's shaft as the drainage shaft, and the shaft by the side as the drawing shaft. A great deal of time and money had been expended; but the mine was now in a state of development, ready for this company, or for someone else, to realise what had been done. As regarded the financial position of the company, the whole of the working capital had been spent, and 10,000l. of debentures had been raised, which had also been practically spent. A great deal of work had been done for the money so expended, and he thought the shareholders would agree that it had been most economically expended. The directors were going to ask for power to raise a further sum of 25,000l. The object was this—5000l. or 6000l. would be required to put the mine in a dividend-paying condition; this would leave about 20,000l.—10,000l. to extinguish the debenture debt, and 10,000l. for contingencies. In conclusion, the Chairman moved the adoption of the report and accounts.

Mr. E. G. HAMLEY seconded the motion.

A SHAREHOLDER asked whether the calls in arrears were all good?—The SECRETARY said more than half were good, the remainder would probably have to be forfeited.

Mr. WILLAN expressed the opinion that Lewis' shaft should have been started earlier.

Mr. DERRY said there was no doubt Lewis' shaft might have been advantageously started before it was, but the working was commenced where it was because the local agent at the time insisted that they should drive out from the old Trelawny Mine, and ascertain the position of the lode. He himself had always urged the sinking of the shaft upon the new mine, and if this had been done at first he believed they would now have been receiving dividends. By means of a plan he explained that in driving from the Old Trelawny Mine towards the new ground, and towards the Treveltha Mine, they came upon a piece of barren ground of a wedge-like form, which got narrower as depth was attained, but the deepest level was now driven quite under that piece of unproductive ground, and the end was letting in water freely. They would bring down Lewis' shaft to that level, and then they would drive north and south upon the course of the lode. He believed that within a short time Wheal Hony would be a dividend-paying mine, and they would have been receiving dividends. A telegram just received from the mine gave indications that they were on the point of cutting it.

Mr. LOAM (consulting engineer) entered into some particulars to justify the placing of the shaft where it had been sunk. He also mentioned that in all the ends in Treveltha where it joined Wheal Hony the lode left off rich.

The resolution for the adoption of the report and accounts was then put and carried.

On the motion of the CHAIRMAN, seconded by Mr. HAMLEY, Mr. J. Romanes was re-elected a director.

On the motion of the CHAIRMAN, seconded by Mr. LOAM, the auditor, Mr. Fred. Pryce, was re-elected.

The meeting was then made special, and the CHAIRMAN moved that the capital of the company be increased by the sum of 25,000l., by the creation of 12,500 shares of 2l. each, to be entitled to a preferential dividend of 10 per cent. on the sum paid up for the time being. He said the directors were all considerable shareholders, and he thought it was probable that the shareholders would rapidly assent to the proposal, and he believed this would be done if the board were placed in funds to push on the operations.—Mr. HAMLEY seconded the motion.

The SECRETARY, in reply to a question, said it was not intended to call up more than 15,000l. at the present time. The shares would be issued, in the first instance, *pro rata* to the shareholders.

After some short discussion on matters of detail the resolution was put and carried unanimously. A vote of thanks to the Chairman and directors closed the proceedings.

## EAST POOL MINING COMPANY.

The quarterly meeting of adventurers was held at the mine on Monday, Mr. G. A. MICHELL in the chair.

The usual preliminaries having been disposed of the statement of accounts were submitted showing a profit on the 12 weeks' working of 6914l., increasing the available balance to 8265l., out of which they had paid 2500l. on account of the new cylinder, and proposed a dividend of 6400l. (12l. per share) leaving 1815l. in reserve.

Capt. BISHOP, FENHALE, and CURTIS, in reporting upon the various points of operation said that with respect to the great lode the engine-shaft had been sunk 13 fathoms below the 200 fm. level. They had cut the top-lap, and were putting in the skip-road from the 200 to the 212 fm. level. They hope to commence to drive the cross-cut north to the great lode in about a fortnight. The winze in the bottom of the 200 fm. level west was down 11 fms. The lode was 7½ ft. wide, and worth for tin 55l. per fm. The 190 west was of the value of 18l. per fathom, and there were six stopes in the lode each worth on an average 30l. per fathom. There was a rise in the back of the 190, on the south part of the lode, of the value of 30l. per fathom. The winze in the bottom of the 180 fm. level west was worth 20l. per fathom, and there were three stopes in the level each, on an average, of the value of 25l. per fathom. The 170 fm. level west was worth 15l. per fathom. There were two stopes in the bottom of this level worth 30l. per fathom each stoppe. There was a stope in the bottom of the 160 fm. level worth 20l. per fathom. The 150 west was worth 40l. per fathom. There was a stope in the bottom of this level worth 30l. per fathom.—Flat Lode: The 170 fm. level east was being driven by a boring machine. The lode was of a very promising character, and worth 30l. per fathom. There were two stopes in the bottom of this level, each worth 15l. per fathom. The 160 east was worth 20l. per fathom, and there were two stopes in the bottom of this level each of the value of 18l. per fathom.—South Lode: The 190 west was worth 25l. per fathom, and the rise in the back of the level was of the value of 30l. per fathom. The 180 fm. level east was worth 20l. per fathom, and there were two stopes in the bottom of this level worth 25l. per fathom each stoppe. In the 170 there were five stopes, worth on an average 20l. per fathom each. In 160 there were two stopes, worth for copper and tin 35l. each stoppe.

Mr. HAYE (the purser) remarked that the report was as good as they had had for some time past; he added that the committee had decided to recommend the appointment of Mr. Brantwell in place of Mr. Broad, deceased.

On the proposition of the CHAIRMAN, seconded by Mr. WOODCOCK, it was unanimously resolved that Mr. Brantwell be a member of the committee.

Mr. BRANTWELL, in acknowledging his election, said that he was somewhat averse to honorary appointments, but he was asked so strongly by Mr. HAYE to accept the office that he expressed his willingness, provided the shareholders were agreeable. He accepted with the more cheerfulness because the financial part of the business was in the hands of so able a gentleman as Mr. HAYE. With reference to the remark of the purser as to their too deliberate way of paying their bills in the past, he thought it was a great mistake for a rich mine to take so long in paying bills. It was especially bad policy because they all knew, as men of business, that it was quite impossible to buy goods in the cheapest market unless they were prepared to pay for them.

Capt. BISHOP, in replying to the vote of thanks to the agents, observed that for a long time it had been considered necessary to sink another shaft. At first it was contemplated to put down a shaft in the western part of the mine. It was afterwards felt that the most advisable course would be to sink the south

shaft. But it was now deemed most expedient, inasmuch as the flat ground was productive in the western part of the mine, that a shaft be sunk in the centre, between the caunter and the flat lode. This would allow of drawing from either of the lodges. And in going down on Price's lode the shaft would not only command this central position, but it would be put half the distance through the old workings. This would mean less expense, too, than the sinking of either of the shafts at first suggested. They had improved their stamping power at the Henriet engine by 32 heads, and the engine was sufficiently powerful to drive 32 additional heads. Therefore, if they raised more stuff they would return more tin. The lode in the 200 in the engine-shaft of the great lode was valued in the winze at the last account at 45l. per fathom. That was on the point of the dip. Strange to say, the dips ran east. The lode was thrown out of its regular cost by the fissures, which they expected, something like 12 or 15 ft. Having gone through the fissures the lode formed its proper underlay, and the lode was never seen so well as now at the 11 fathom. The lode was 7 ft. wide, but they believed they would have more of the lode north of the north wall. The last three parcels made an average of 1 cwt. 0 qr. 9 lbs. to the ton of stuff. The lode was masterly in its character, and there was every element of productiveness that one could anticipate. It augured well for the 212. There was, too, an important feature in the flat lode at the 170. They had found, after the last 6 or 7 fms. driving, that the lode was taking a southerly direction, and instead of having 60 fms., as they had anticipated, they had 180 fms., provided it kept the same course. The lode did not seem to go to Wheal Agar as soon as they had expected. The last assay gave 3 qrs. 14 lbs. of tin to the ton—a strong good lode, full of mundie, which was a great harbinger of strength to the lode. They, however, wanted a better price for tin. They had a little tin in stock, and he did not think the next price would be less than the last.

A vote of thanks to the Chairman terminated the proceedings.

## ANDERTON TIN MINE.

The four-monthly meeting was held on the mine on Monday, and was largely attended by the adventurers. The chair was occupied by Mr. J. MURRAY, the purser. The accounts showed that the income during the past four months from the sale of tin was 853l. 11s., and after payment of dues, 35l. 8s. 3d., and all costs and charges, there remained a net profit of 272l. 3s. 11d., which added to cash balance brought forward from the previous account of 807l. 15s. 4d. showed profit of 352l. 15s. 3d. This was the net result of the arrangement under which the mine was worked on a trial, receiving one-third of the net proceeds after every cost and liability was paid, and which under ordinary working would have been available for dividend. The tribute contract, however, was now terminated, and the mine was now being worked by the company. The substantial improvement in the value of the mine justified the increase in the working machinery, to which large additions were being made, and this had reduced this credit balance; but all labour costs and liabilities to merchants were fully entered up, and paid up to June 9. It is not intended to make any call, as the tin now on the floors in course of being dressed will be shortly ready for market, and will meet the working costs. The 30 in. rotary engine which had been purchased was now being erected, and the engine-house was ready to receive it. The 9-in. pitwork was being put in, and the shaft had been timbered and secured in the most substantial and permanent manner. The engine and pitwork cost the mine nothing, having been voluntarily presented by the lessees, so that the company was in possession of ample engine-power, with pumping and stamping appliances, and was entirely free from debt, and getting and dressing tin sufficient to pay all the charges. In about two months hence the engine would be at work, and the mine in fork to a depth of at least of one hundred fms. The lode gone down in the winze when the water became too quick for continuing the operations there. The lode going west is about 6 ft. big, and yielding a large percentage of tin. Since the enlargement of the store reservoir the stamps have been kept at work a fair portion of each day, and with a little more water the lode is yielding tinstuff to keep them going full time. In every department, and at all points, the Chairman was satisfied that he was fully justified in congratulating the adventurers on the possession of a valuable and prosperous property. The following is the agent's report read at the meeting:—

June 18. I have briefly to report that it is my opinion that Anderton is one of the best mining properties in the district. We have broken from the lode portions which contain tin east to west throughout, which have shown that the great Anderton tin lode is one of the best I ever saw. As you well know, we have dressed and sold a large quantity of tin from 55 fms. of ground, and finding the lode holding down and containing a better grain tin, we sunk a winze 4 fms. with some difficulty, owing to the water, and here we found the lode worth 50l. per fathom, and I expect we shall have a great mass of tin at the next level, or at the union of the two lodges coming together in a few fathoms sinking. It is a well established experience of all miners to find such unions of lodes yielding large returns. This part cannot be worked until the water is out, and very soon the engine will enable us to reach these riches, when we shall prove by tin sales how valuable a mine we have in Anderton. From the first everything I have seen has gone to convince me more and more how rich a mine we have, and I look forward to highly profitable results at a very early date.—W. J. BOWHAY.

The subject of independent report of Mr. R. Walters, mining surveyor, Tavistock, was read at the meeting:—

May 24.—Having recently surveyed and dialled the whole of this mining property, and made a new plan and section of the same, I beg to give you particulars of the work done underground, its prospects, and also the work done at surface since my visit in September last. The adit level has been driven west from the cross-course on the new tin lode 10 fms., and the present end is of the same value as the lode has been throughout the whole drive—worth from 50l. to 60l. per fathom. In the bottom of this level a fine cross-cut has been sunk 4 fms. a fine course of tin, which has paid a good profit. This sinking was obliged to be suspended owing to the increase of water. There is a splendid lode going down in this winze, and it has been proved by sales that the same produced tin to the value of 120l. per fathom for the length of the winze. The stope in back of the level on this lode is also yielding the usual quantity of tin. The engine-shaft has been collared up, new sets of timber put in, ladder-road collars, and is now quite ready to receive the first 18-in. pumps. A 30-in. rotary steam-engine has been purchased, and the engine-house will be ready to receive the same in a fortnight, and in six weeks time it is contemplated the engine will be at work. The reservoir has been widened, sunk, and secured for 70 ft. square and 7 ft. in depth, which will now contain sufficient water to keep the stamps working all day long, even in the summer season. I have, therefore, every reason to believe that after the engine is set to work, and the mine in fork (the engine-shaft being sunk to the 70 fm. level), you will soon be making returns sufficient to pay large dividends; and, from my knowledge of the tin mines in the West of England, I am fairly sure there are no tin mines in the district that will pay so much interest on the shares as Anderton.

The proceedings terminated with the usual complimentary vote.

## RHODES REEF GOLD MINING COMPANY.

A general meeting of shareholders was held at the Cannon-street Hotel, on Thursday, Major-Gen. ALFRED LIGHT, R.H.A., in the chair.

The SECRETARY read the notice convening the meeting, and the report and accounts were taken as read.

The CHAIRMAN said: There is no denying that the quartz we have treated has up to the present proved unremunerative, though doubtless some loss of gold has occurred in the milling, but there is no reason to despair of better results. Let us not be disheartened too soon. In other auriferous countries (and the Wynaad is an auriferous country) the quality of the reefs generally have proved richer at great depths than near the surface, even where they have not been, as here, worked for unknown ages by miners whose means and appliances we have up to the present greatly underestimated. The whole of the outcrops of the reefs appear in the Wynaad the more we see of them to have been thoroughly worked out by our predecessors, when or how we cannot tell. Some months ago, gentlemen, we arrived at this conclusion, and sent out orders to Mr. Gitchell, your mining manager, to commence work at such depths as would strike the reefs absolutely below the lowest point the ancient miners could possibly have reached. These reefs are being rapidly pushed on, and on the result of these deep workings depends the fate of our company. As soon as from these lower depths trial crushings have been made you will be able to judge as well as we can tell you whether it is better to go on or give up. During the past few months we have made many economies, especially in our staff in India, by the substitution of Eurasian and native artificers and mechanics for the higher-paid European, and at home in the purchase and despatch of stones to the mines. In this last we have been greatly assisted, since he joined the board, by Sir H. B. Hall, whose experience and skill in a number of other mines, not very rich in produce, has been most valuable to us. As to the accounts, I think, gentlemen, that the most disappointed shareholder must, on going through them, give us credit for not having wasted his money. You may ask what policy have we to put before you. We have this. Give the reef a full trial. I can assure you that we have not the least desire to prolong work one day beyond what is necessary to ascertain such facts as we ought to have before coming to a final decision. Our entire expenditure last year was, as you see, roughly 8500l., of which at least 5500l. represented permanent buildings and machinery, charges not likely to occur this year. Taking the whole circumstances into consideration, and the economies we have inaugurated, we consider that the whole expenses of next year should not exceed 6500l. Practically this means sufficient capital to carry on for four years longer, if at our next meeting you should consider the results good enough to warrant our doing so. I ought not to allow Mr. Darlington's visit to the Wynaad to pass unnoticed. We pressed him to inspect Rhodes Reef, but he found himself unable to undertake the work consistently with his duty to the other companies by whom he had been specially retained. Mr. Darlington quite concurs in the policy we are pursuing. He considers there is full justification for the further limited trial we propose to carry out; and we were very glad to have his opinion that, judging from appearances, no money had been wasted in unnecessary machinery, or in the mine, the buildings, or on the works.

Mr. WILLIAM HODDING seconded the motion. The mill when cleaned up, my presence, and after seven and a half days' work, was cleaned up, and 25 ozs. free gold was obtained, or at the rate of nearly 3½ dwts. per ton. Maintaining that rate of working for 300 days in the year would give us an amount of gold which would make a material difference in the profit and loss sheet for next year. The labour question in certain months is, no doubt, formidable, as the native miners, as soon as fever sets in, have a habit of leaving for their homes till May to spend their previous nine months' earnings, but, in spite of this drawback, our manager has never been left totally in the lurch. Your mine is being proved at a further depth, which will materially add to your reserves of quartz. There is gold on your property, I believe, in greater quantities than has as yet been discovered. In a kindred company in a different part of India the manager had recommended the closing up of the mine, and after referring to his directors it was resolved to shut it up; but as the men were under engagement for a definite period they contemplated working on until their time had expired. In the meantime they kept working on, and, coming across a mass of quartz, they followed it, and came into some old native workings properly



timbered. They then sunk 23 ft. further, and came upon the reef, averaging about 3 ft. 6 in. in width, the stone in which was exceeding rich in visible gold, quite unlike the quartz hitherto discovered in the Wynaad, resembling more the gray and white quartz of Australia. It was estimated to produce 4 ozs. to the ton, but good judges said it would go more; 28 tons were then on the bank, and machinery was being prepared to crush it. Since then I have observed the statement of the crushing of 42 tons yielding 243 ozs. of gold, or at the rate of 5 7/8 ozs. per ton. I must say a few words about the surface indications in the Wynaad and on your property. The general consensus of opinion is that specimens collected from the various outcrops give far better results than are to be obtained from stuff that has not been exposed to the action of the atmosphere. From the above cause the gold is liberated from the pyrites through the stones decomposing, and a show is thus to be obtained which you may look for in vain when not exposed to this influence. This has had a great deal to do with the estimates that were originally formed as to the value of the quartz on your property. As to pyrites. This question was exacting more than usual attention both on your side of the table and on this, and my first efforts were directed to giving it as extensive a test as my stay on the property would admit. The furnace for calcining the pyrites was got under weigh, and some 20 or 30 tons were burnt, and the Chilian mill and amalgamator set to work; some 18 tons were ground and treated, with the result announced to you by telegram—14 dwts. per ton. This result was most unsatisfactory, and your manager was not prepared to account for it, pending further trials, beyond giving it as his opinion that the quartz which had produced the pyrites was so poor in the yield of free gold that it was reasonable to think that the pyrites were poor in gold also. He put aside the pyrites arising from the 150 tons crushed when I was there, yielding the 3 1/2 dwts. free gold; it has subsequently been burnt, and the result may come to hand at any moment. If this lot does not improve in yield we must try the treatment in the Chilian mill without having recourse to burning, as the expense would thus be considerably lessened. Mr. Cooper, of the South-East Wynaad, was treating his pyrites in this fashion, maintaining that calcining was unnecessary. This, however, cannot be solved except by comparative trials.

Mr. M. VAN DUREN called attention to two or three of the items in the balance sheet, and complained that some of the items treated as assets were really expenses. The whole thing could be brought up at about an eighth of what it had cost him. If the prospects of the company were not more encouraging than its past history had been, he would recommend the division of the capital remaining as soon as possible. They were \$2000, or 90000, worse off than they were a year ago, and if they went on like that, they would soon lose everything. The freehold estate was put down at 130,000, but what was its realisable value? He also asked why Sir David Salomons and Mr. Baxter had retired from the direction.

Mr. SEAL thought the shareholders were exceedingly indebted to the Chairman and to Mr. Hodding for the frank manner in which they had brought everything before them. He wished, however, to call attention to the original prospectus, which contained assays and reports from Messrs. Johnson and Matthey and Messrs. Johnson and Co., the assays giving an average of 1 oz. 5 dwts. of gold to the ton of quartz. The statement was also made by Messrs. Johnson and Matthey that the samples were opened in the presence of a member of their firm, and from personal examination, they had reason to believe that the samples "must have been taken indiscriminately, and without any special selection." He (Mr. Seal) was anxious to believe that that statement was a true one; but he thought the time had now arrived for ascertaining whether there had been any grounds whatever for the issue of such a statement. In the report now sent out it was said that "the quartz from the part of the reef which was first opened up did not prove remunerative, the yield of gold having been about 1 dwt. per ton only." There was a very striking difference between these two statements. He thought they should have some explanation why the assays quoted in the prospectus were so immeasurably above anything that had since been ascertained. (Cheers.)

Mr. SAINES remarked that they had started operations expecting to find gold in a hurry; but they were now told they must go deeper and get under the native workings. He thought they should sink deeper, and give the property a fair trial before talking of stopping. He suggested that within a certain time the shareholders should be called together and informed of the results obtained from the deeper quartz. It would certainly be very premature to talk about winding-up when they were making these experiments, and he thought Mr. EDWIN MAY, speaking as perhaps the largest shareholder in the company, said he took it that the statements contained in the original prospectus were based upon crushing but upon assays, and that was a very important distinction. What they had found out was the mode of crushing adopted so far would not extract the gold. What he wished to ask was whether, since the company was commenced, they had had any assays made to show whether or not the original assays were fair?

Mr. FAY, in the course of further discussion, suggested that the shareholders should be advised to give the property a fair trial from time to time.—The CHAIRMAN said that the reports were published periodically as soon as possible after they were received. To send all the reports round to the shareholders, of whom there were 2309, would be too expensive a thing to do.

The CHAIRMAN, in reply to General FIELDING, said they had no cinchona plantations; theirs was simply a mining property. About 120 ozs. of gold were now on their way home. The tunnels had only been begun recently, and it would be impossible to say at present how far they would have to go to reach the lode. It was necessary to have the lode dipping to the right, and not to the left. The CHAIRMAN, in reply to questions asked, said the directors who had retired did so for private reasons, and without any reference to the company's position or prospects. Having explained a few of the items in the accounts for the information of Mr. Van Duren, the Chairman said they were associated with the Devala Moyer Company in everything but direction. The directors had recently sent out a Morris amalgamator, and by this time it had probably arrived in India. It would be erected as soon as possible, and one set of five stamps would be devoted to giving this a fair trial. Morris's amalgamator had been tried successfully by the St. John del Rey Company. Mr. Darlington was of opinion that 6000, and about 12 or 15 months' work, should give the property a conclusive trial. The value of the estate entirely depended on its success as a mining property. Directly the directors had any news of importance, good or bad, it would be communicated to the shareholders.

The motion for adopting the report and accounts was then put and carried. Mr. SEAL moved for a report from the directors as to the origin of the company and the statements contained in the prospectus; but, after some conversation, the motion was not pressed.

The retiring directors, Mr. Patrick Carnegie, C.I.E., and Vice-Admiral Sir Leopold George Henth, K.C.B., were elected; and the retiring auditor, Mr. W. G. Goodlife, was reappointed.

The meeting closed with a vote of thanks to the Chairman and directors.

#### INDIAN PHENIX GOLD MINING COMPANY.

The report prepared for presentation at the meeting on Tuesday next, when it will be proposed to wind-up the company voluntarily, and transfer the property and assets to the Indian Consolidated Gold Company upon such company undertaking to discharge the Indian Phoenix debts and liabilities, &c., and allotting 150,000 fully-paid 1/2 shares to the Phoenix shareholders, states that from the general tenor of Mr. Grove's reports, and the fact that he has persistently stated, and is still confident that so soon as the monsoon bursts he will be in a position to pay his way, the directors were led to believe that the funds at their disposal would have been sufficient for fully developing the company's mines. Mr. Darlington's report has thrown a certain amount of doubt on Mr. Grove's ability to realise his expectations, in consequence of the backward condition of the mining operations, though it speaks in high terms of the general efficiency of the machinery and the manner in which the works have been laid out, and gives it as his opinion that the company possesses in the Agnew and Cobrala two recognised fissure reefs which have been proved to be gold bearing, but which have not yet been sufficiently opened out.

The directors have, therefore, decided as a matter of prudence that the necessary capital mentioned by him as required to develop the mines on an efficient scale should be provided. Several schemes for effecting this object have been considered by the directors, and after the fullest enquiry, and bearing in mind the disavowal into which gold mining in India has so suddenly fallen, it was determined to enter into negotiations for amalgamating this company with the Indian Consolidated Gold Company, the owners of the adjoining property, and who were known to have ample funds at their disposal. The directors of the Consolidated Company having received the proposal favourably a provisional agreement has been entered into, subject to the approval of the shareholders, for amalgamating as on Aug. 15 next. It is pointed out that this proposed amalgamation has many advantages, and will secure an immediate and large saving in the cost of the home administration, the concentration of all the energies and resources of the united companies upon those portions of the property likely to yield the best result at the earliest period, and will afford the fullest guarantee that the value of the estates of both companies will be properly tested, which will no doubt strongly recommend the acceptance by the proprietors of so favourable an arrangement. Since the annual statement and accounts made up to Dec. 31 the expenditure has amounted to 10,015, 8s. 10d., including 7000, remitted to India; 1477, 11s. 3d. machinery, freight, and insurance; 435, Indian salaries; 425, fee to Mr. Darlington; and 680, 12s. 7d. printing, stationery, office expenses, &c.

#### NERBUDDA COAL AND IRON COMPANY.

The report of the directors prepared for presentation at the meeting on Tuesday next congratulates the shareholders on the greatly improved position of the undertaking since the last annual meeting. The output of coal for 1882 amounts to 18,571 tons, of which 15,746 tons were sales, the difference having been used at the collieries. This, as compared with 1881, shows an increase of 8117 tons, and is the largest since 1875. Appendix to the report is a copy of the manager's report, which the directors consider in all respects satisfactory. It was anticipated that the manager would have been present at the meeting, and have answered personally any questions that might have been put to him, but owing to a serious illness which befel his assistant (a gentleman recently sent out from England to help the manager in his labours and superintend the works during his absence), he was compelled in the interests of the company to relinquish his journey for another year.

It is with much pleasure the directors announce that coal has been reached in the "Helen" pit at a depth of 267 ft. from the surface, and that the sinking has passed through the No. 1 seam a thickness of 17 ft. Operations are now being pushed on to meet the No. 2 seam, which is about 70 ft. from the No. 1 seam, and must be reached before the No. 1 seam can be worked, as the cage arrangements cannot be put in until that result has been obtained. The manager expects to complete the work by the end of August, after which a full development of the seams will be commenced, thus giving facilities for a large augmentation in the output, provided the necessary labour can be obtained. It is expected that as soon as the shaft has reached the No. 2 seam, the present levels in that seam will be drained, and thereby enable coal to be got out of the existing workings with increased ease and at less cost.

The accounts to be presented are very satisfactory. The revenue exhibits a profit of 5313, 16s. 11d., which, after writing off the year's interest payable on

debentures (1400), and the balance standing to the debit of profit and loss, 1881—1132, 10s. 2d., leaves a surplus of 5066, 6s. 3d. available for dividend. This sum would admit of a dividend of 2 pence (free of income tax) equal to about 4 1/2 per cent., exhausting 4966, 14s. 10d. Inasmuch as the revenue receipts have been applied against capital expenditure for the past and present year, it necessarily arises that in order to carry this into effect and to recoup the amount so expended, and likewise to provide for future contingencies, a call will have to be made. This course the directors have reason to believe will be in accordance with the wishes of the principal shareholders. The expenditure against capital for the past year has amounted to 6884, 14s. 9d., of which 2662, 1s. 3d. was charged to the "Helen" pit, and 1166, 14s. 4d. to borings, the balance being outlay on block and plant, buildings, stores, &c.

The surface expenses have been considerably increased in the past and present year owing to the fire which took place in the month of May, 1882, when the entire native villages were destroyed, including the engineer's bungalow. It is expected that the new site, selected with improved sanitary arrangements, will, in the end, prove to be of great permanent advantage. The liabilities of the company on Dec. 31 amounted to 2587, 6s. 2d., inclusive of the debenture debt now reduced to 1500.

#### RUBY AND DUNDERBERG CONSOLIDATED MINING COMPANY.

The report of the directors prepared for presentation at the meeting on June 26 states that the operations at Eureka during the last six months have been chiefly centred in the Home Ticket Mine, where the ore body, which was referred to in the last annual report, has been continually worked upon and developed; it was first encountered only 40 ft. below the surface, and was again struck in the 65 ft. level, widening and enlarging as it goes down, and what is of equal importance, the ore increases in quality as it is followed in depth; the assay at first was poor, and it did not do more than cover cost of mining, but it has gradually improved, and the later shipments assay nearly 50 a ton in gold and silver at Eureka standards. About 1550 tons of ore have already been taken out of this body, and the last reports do not mention any falling off either in size or quality.

At the Dunderberg Mine work on the company's account was almost suspended in November last, as it was thought best to devote chief attention to the quick development of the ore body at the Home Ticket. The mine has, however, been worked on tribute to a considerable extent with very fair results; the receipts from this source to May 31 being about \$5000, which, it must be remembered is all profit. One important piece of work has, however, been carried on and completed—the upraise from the 300 ft. west cross-cut level to the bottom of the old workings. No ore was actually met with during this operation, though the indications in several places were favourable, and it is intended to follow these up; but now that connection has been made between the two mines it will be possible, should this ore body at the Home Ticket go down deep, to work same through the Dunderberg Mine, and thus reduce the cost of mining considerably.

With regard to the Lord Byron and Valentine Mines, since the last report some negotiations have been entered into for their sale, but no definite arrangement could be completed, and for the present the matter is at an end. In the meantime some tributaries have lately gone to work at these mines, and by last accounts were sinking a shaft from the surface, which was down 35 ft.; it is hoped that some good results may follow.

It has been decided to grant the lessees of the El Dorado Mine another year's lease, as they have made a great deal of work without, as yet, any return to speak of; they are still, however, very confident of ultimate success, from the indications which have been met with from time to time.

Efforts have been made during the last six months to lease one or two of the company's other mines now lying idle to some responsible company, but as yet without success; this matter, however, is having the constant attention of the board and of the manager at Eureka. The directors have only further to report that, up to the end of February last, the receipts for ore did not balance the expenditure, the deficiency being provided by remittances from this side; but during March and April the ore receipts covered all expenses at Eureka, and in May good profit was realised. Mr. R. Rickard in his last letter, received here on 8th inst., mentions that they are now equipped to raise from 15 to 20 tons a day, and if the ore maintains the present assay, a profit of from \$4000 to \$5000 a month should be realised.

#### EBBW VALE STEEL, IRON, AND COAL COMPANY.

The report of the directors for the year ended March 31 states that the gross profit was \$4,476, 7s. 10d., from which must be deducted debenture interest and legal and head office expenses, 41,560, 4s. 11d.; leaving net profit of 42,916, 2s. 11d., of which 22,028, 11s. has been written off for depreciation of property and 20,877, 11s. 11d. carried to profit and loss account, which is thus increased to 42,058, 12s. 3d.; out of this the directors recommend the payment of a dividend of 5s. per share, free of income tax, amounting to 18,618, 15s., carrying forward the balance of 23,439, 17s. 3d. to next year's account. The outlay on new work during the year has been larger than usual, and has been caused by the failure of the blast-furnaces at Sirhowy and Victoria, the replacement of which on the best principles was an absolute necessity to meet the requirements of the works as well as to decrease the cost of production. Arrangements have been completed for the purchase of a substantial company, the Abercrombie Colliery, together with Ebbw Vale Company's freehold property at Cwm Carne, and it is anticipated that in another 12 months' operations will be so far advanced that coal will then be got in large quantity, thus yielding the company a considerable revenue. A statement exhibiting the amounts owing on mortgages, debentures, and loans at the close of each of the six years from 1878 to 1883, both inclusive, is given, and shows that the amounts due were 659,244, in 1878, and that it was reduced to 573,133, in the following year, to 568,815, in 1880, to 552,775, in 1881, and to 531,834, in 1882. In 1883 (30,000) deposited with the bank as collateral security have been withdrawn. The annual accounts of the trustees of the mortgage show that during the year they have repaid 16,000, of debentures, which have matured and not been renewed. The total amount of bonds repaid by the trustees to March, 1883, is 80,800. Any bonds paid out of the fund of the mortgages' account cannot be renewed. There is a further sum of 9603, standing in the names of the trustees, which has been subscribed for debentures. This is a special fund, available only for the repayment of debentures, and with the sum of 55,326, balance of the mortgages account, makes a total of 64,929, in the hands of the trustees. The balance-sheet shows the capital of the company to be 1,712,925, of which 1,503,632, is paid up. The unpaid capital amounts to 209,293, being 3s. per share on 69,754 23s. shares. The mortgage debentures amount to 599,242, 1s. (being at 5 per cent. 426,649, 10s. and 172,601, at 6 per cent.) The expenditure on account of new works during the year has been 32,434, 14s. 7d., or nearly double the amount paid in dividend. The value of the property (exclusive of new works) is estimated at 1,790,000.

#### OWEN VEAN AND TREGURTHA DOWNS MINES.

The subjoined second report by Mr. Thomas Collingwood Kitto, M.E. (dated June 11), has just been received by the directors:—

Agreeably to your request I have again inspected the Owen Vean and Tregurtha Downs Mines. Seven months ago I visited those mines for the first time and was particularly struck with the highly metalliferous character of the geological formation of the whole of the locality of which they form the centre. At that time the mines were full of water to within a few feet of the surface, the adit was found to be caved in in many places, the engine-house for the reception of the 80-in. cylinder engine was only just commenced to be built, and it was remarked by some mining men present that it would take from 18 to 20 months before the water was out of the second level. But I find that already (less than seven months from my last visit) the adit has been cleared and properly secured so as to carry off all the water from the surface to the horizon of the adit; the very substantial engine house has been completed and one of the best 80 in. cylinder engines in England has been erected in such a manner as to reflect a large amount of credit on the principal engineers, Messrs. Leam and Son, and the subordinates; the mine has been drained to a depth of 20 fms. below the adit, two permanent hauling shafts—stack and water shaft, have been cleared, enlarged and substantially timbered for a depth of 7 fms. below the adit; the bridge, or footway shaft, has been repaired and properly completed to a depth of 26 fms. below the adit. Carpenters' and smiths' shops and the necessary store-houses have been built and altogether I must say the executive have displayed an amount of energy and economy which reflects much credit on themselves and cannot fail to inspire confidence in the general body of shareholders. So far everything has gone on very satisfactorily and the company seems to be well equipped for receiving full value for their money, which, unfortunately, is not always the case in reopening mines.

Probably the company are as anxious for my opinion of the ultimate value of the property as they are of learning, from an independent source, the success which has already attended their efforts.

You will remember that in my report of Nov. 13 I called attention to the area of lode contained in the fine run of argillaceous schist which has been proved to be a valuable source of supply, and may be mined as a separate lode north and has a longitudinal bearing almost due east and west. Towards the hanging or head wall of the run of schist and parallel with it there is a regular and well-defined lode, which has been named the North Lode, and towards the south side of the schist there is a regular and well-defined lode which for convenience has been named the South Lode. Between the north and south lodes there are numerous veins and cross veins, which partake of the true character of the lode and which, if I read the geological evidence aright, form a very important feature in connection with the property.

On the south lode seven shafts have been sunk to depths varying from 20 fms. to about 60 fms., and these shafts have been connected by three tunnels driven at 10, 20, and 30 fms. below the adit and nearly all the lodes between the tunnels have been taken away by the old workers evidently at a profit.

Below the 30 ft. lode may be said to be entire, inasmuch as the only work done below that point is the sinking of the engine-shaft and the driving of the two tunnels at a short distance at the 40 and 50 respectively; both the sinking and driving was dead work to the former workers, and from which the present company will derive the entire benefit, inasmuch as when the water has been drained out of the 50 there will be standing 20 fms. of lode in high ground, which has been proved to be very productive in the shallower levels for fully 140 fathoms in length. This places the present company in unusually favourable circumstances, for assuming the lode to be only 3 ft. broad it gives a reserve of fully 17,000 tons, which, in my opinion, will be found equally as valuable as in the levels above; in fact, it is my opinion that as depth is attained this lode will increase in value.

Recent experiments have proved that there are large quantities of tin ore, which can be taken away at a profit even at the very shallow levels, and this appears to be demonstrated to a certain extent by the facts that the samples which I roughly tested on the mine yielded at a rate of fully 1 1/2 cwt. of black

tin per ton; but this, I think, would be much above the general average and, therefore, cannot be taken as a fair estimate; there is, however, a good payable lode at the 20 west of Bridge shaft, which is capable of supplying a large number of stamps and which can be returned at a good profit. Setting aside the favourable opinions I entertain of the geological features of your property there is the fact that the ancient workers have left exposed to view large bodies of tin ore, which, with our scientific improvements, can be returned immediately at a good profit and, in my opinion, this fact speaks volumes in favour of the ultimate success of your mine. I have every reason to believe the north lode is equally as valuable as the south lode, the geological evidence being the same and the fact of all the lode having been stopped out (excavated) between the shallow levels is a proof of its former productiveness. I believe you have only to sink the mine deeper and exercise the same energy and economy which have hitherto characterised your efforts, in order to have a good substantial dividend-paying mine.

I strongly advise you to spare no expense in getting the water out of the bottom of the mine as quickly as possible and to erect powerful stamps without any delay.

**WEST WHEEL PEEVOR.**—At the meeting, on Thursday (Mr. Thos. Pryor in the chair), the accounts showed a loss on the four months' working of 1521/. A call of 10s. per share was made. Referring to the prospects of the mine, Capt. White asked the shareholders to consider the report of last meeting, from which they would remember that they had then just commenced to drive in the old levels from Wheel Peevor. As a result the greater portion of the period had passed before any advantage could be derived from the driving in these levels. In the first four weeks nearly their whole time was occupied in fixing the skip-road. He was sorry to find that more tin had not been returned. There were 4 tons less than last time. If they should be able to keep the stamps fully supplied he believed they would be able to pay costs, if not do more than that even. He considered the prospects of the deeper levels west of the cross-course greatly beyond anything they had yet seen in the upper levels. He had great faith that they should meet with something profitable when they cut the lode west of the cross-course at the 60, which they were now driving. He looked for increased returns in the next 16 weeks.

**YOUNG'S PARAFFIN LIGHT AND MINERAL OIL COMPANY.**—At the meeting in Glasgow, on Tuesday, the Chairman stated that all the old retorts were being superseded by the newest and most improved type, and of these there were now no fewer than 576 in operation, with 324 yet to reconstruct. He also mentioned that a new shale field had been leased by the company, and great results were expected from it. The company's sales of paraffin candles had increased more than four-fold during the last ten years. Last year's deliveries were 20 per cent. in excess of those of the previous year, and for the current 12 months contracts had been secured for as many as were sold last year at an advance of 1d. per pound. A new refrigerator—the first of the kind—had recently been erected, and great results were expected from it. The Chairman then referred to the most important product, so far as their company were concerned—burning oils. Last year the price of oil, through the excessive production of petroleum in America was lower than it had ever been, and the difference between the price realised and the average of what their company derived for many years amounted on the present production to 200,000. The report, which recommended a dividend of 4 per cent., was unanimously adopted.

#### THE COPPER TRADE.

Messrs. HARRINGTON, HORAN, and Co. (Liverpool, June 15).—Chill copper charters for second part of May were advised on June 1 as 1700 tons fine, of which 550 tons bars and ingots, with 250 tons furnace stuff for England, and 900 tons bars and ingots for continent. During the past fortnight Chill bar market has been somewhat erratic in its movements, and sales of spot parcels were made at 64, 5s. down to 6 1/2, per ton, and of arrival parcels at 62, 12s. 6d. per ton, while to-day the tone is steadier, and prices range from 62, 12s. 6d. for good ordinary brands in warehouse to 64, 2s. 6d. for the same description with three months' prompt guaranteed. The sales of furnace material comprise:—At Liverpool: 120 tons Italian ore to arrive at 12s., and 350 tons Mexican ore also to arrive at 12s. 6d. per unit. At Swansea: 103 tons Moonta ore at 12s. 3d., also 102 tons Australian, both low producers, at 10s. 9d. per unit. Precipitate: 243 tons Spanish at 12s. 9d., and 100 tons English at 13s. per unit.

Import of Chill copper during the past fortnight, 1111 tons fine, against 1052 tons fine same time last year; delivery, 825 tons fine, against 1045 tons fine same time last year; import of other copper during the past fortnight, 1178 tons fine, against 1482 tons fine same time last year; delivery, 794 tons fine, against 1869 tons fine same time last year. Arrivals here during the fortnight of West Coast S. A. Produce:—Aconagua, from Valparaiso, 80, 251 tons bars, and 265 tons ingots; Magellan, from Valparaiso, 355 tons bars; Arctic, from Coquimbo, 280 tons bars. At Swansea nil. Stocks of copper (Chilian and Bolivian) in first and second hands, likely to be available, we estimate at—

	Ores.	Regulus.	Bars.	Ingots.	Barilla.
Liverpool	—	455	17,272	428	—
Swansea	—	3,573	7,322	—	—
Total	—	4,028	24,594	428	—

Representing about 25,233 tons fine copper, against 25,547 tons June 31, against 23,788 tons June 15, 1882; 30,753 tons June 15, 1881; 31,207 tons June 15, 1880.

Stock of copper contained in other foreign ore and Spanish precipitate, 3672 tons fine, against 1839 tons June 15, 1882. Stock of Chilian bars and ingots in Havre, 2343 tons fine, against 2794 tons June 15, 1882. Stock of Coro Coro Barilla in Havre, — tons, against 163 tons June 15, 1882. Stock of copper other than Chilian in Havre, 155 tons fine, against 31 tons June 15, 1882. Stock of Chilian copper float and chartered for to date, 9207 tons fine, against 10,070 tons June 15, 1882. Stock of foreign copper in London, chiefly Australian, 5000 tons fine, against 8250 tons June 15, 1882.

According to the Board of Trade Returns the total imports and exports into and from this country for the first five months of the following years were:—

	1881.	1882.	1883.
Imports.			
Copper in ores	3,953	4,204	5,098
Copper regulus and precipitate	11,566	11,017	14,043
Bars, cakes, and ingots	10,952	14,034	14,800
In pyrites, estimated	5,800	5,958	7,402
Total	32,334	35,193	41,343
Exports.			
English copper—wrought and unwrought	13,287	10,788	14,097
Foreign copper—unwrought	4,575	4,813	4,784
Yellow metal	6,170	7,544	7,942
Total	24,032	23,245	26,823

At Truro Ticketing, on Thursday, 2566 tons of ore of 5 1/2 average produce, and containing 145 tons 0 cwt. of fine copper, were sold for 7677, 2s., being 27, 19s. 6d. per ton of ore, 10s. 7d. per unit, or 527, 19s. per ton of fine copper in the ore, and an average standard of 1017, 12s. Subjoined are the particulars of the two last sales:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
May 31...	759	£ 92 16 0	...	7	£ 13 5 0	12s. 9d. ... £ 53 12 0
June 21...	2566	101 12 0	...	5 1/2	2 19 6	10 7 ... £ 52 10 0

Compared with the last sale the advance has been in the standard 17, and the price per ton of ore about 1s. 4d.

**GAS SHARES.**—The principal business in these shares, according to this evening's report of Messrs. W. L. WEBB and Co., of the Stock Exchange and Finch-lane, has been:—Bombay (Limited), 6 1/2; New, 4 1/2; Buenos Ayres, New (Limited), 8 1/2; Continental Union (Limited), 69 and 72, 18 1/2; European, New, 2 1/2; Gas Light and Coke, A. (Ordinary), 189 1/2 to 189 3/4; ditto, H. 7 per cent. Max., 140 to 141; Imperial and Continental, 199 to 200 1/2; London Gas Light Ordinary, 22 1/2; ditto, First Pref., 145; Malta and Mediterranean, 21 1/2; Metropolitan of Melbourne 8 per cent. Debentures, 100; Monte Video (Limited), 15 to 15 1/2; Oriental (Limited), 7 1/2; ditto, 1879 (1 1/2); Ottoman (Limited), 4 1/2; Rio de Janeiro, 23 1/2 to 23 3/4; South Metropolitan, B, 192 to 192 1/2; Gas Stocks steady, especially London Gas, upon the amalgamation with the Gas Light and Coke company.

**INSURANCE SHARES** have, according to this evening's report of Messrs. W. L. WEBB and Co., of the Stock Exchange and Finch-lane, been dealt in as follows:—Alliance British and Foreign, 36; City of London Fire (Limited), 1 1/2 to 1 3/4; Commercial Union, 19 1/2; Fire Insurance Association (Limited), 27 1/2 to 28; Employers' Liability Association Corporation (Limited), 2 1/2; Liverpool, London, and Globe (1st annuity), 23 1/2; Law, 58 1/2; London and Provincial Fire (Limited), 1 1/2; ditto Marine, 4 1/2; Marine, 4 1/2; Rock Life, 8 1/2. Insurances steady. Fire companies firmer. Marine Insurance better upon good dividend.

**TRAMWAYS.**—The closing prices of this evening, as quoted by Mr. W. ABROTT, of Tokenhouse-yard, are given in tabular form in the last page of the Journal.

**RAILWAY AND GENERAL MARKETS.**—Referring to the course of business done to-day during official hours (11 to 3) Mr. Ferdinand R. Kirk, Birchin-lane, writes:—Opening: Yesterday's drop of 2 1/2 in Brighton, A. appears to have brought in buyers, the price being 17, better, at 11 1/2. American railways are better, Erie being 29, and Atlantic Firsts 48 1/2. Trunk Ordinary are again 19, and the Third Preference 44 1/2. In the mining market considerable attention has been paid to Organs throughout the week. After being 2 to 2 1/2, the price fell rapidly to 1 1/2, after which a recovery set in, and this morning the price is 1 1/2 to 1 3/4. The decline appears to have been brought about by a circular emanating from a person not a shareholder. Wheel Grebens are only quoted 2 1/2 to 2 3/4; next month a dividend will be paid, estimated at 2s. or 2s. 6d. The dividend now declared on the Newport Abercrombie Coal Company brings up the total distribution for the year to 10 per cent. The 10s. shares ought to be at least par, one would think. Bratsberg, 2 to 2 1/4, and in demand. Chontales, 4s. to 5s.; East Wheel Rose, 11s. 3d. to 12s. 9d. Home Mine Trust continue scarce, now 3 1/2 to 5; Moonta Bay, 5s. to 7s.; Old Shepherds, 11s. to 13s.; West Greber, 6s. to 8s.; South Canadian (Limited), 15s. to 15s.; La Plata, 25s. to 25s. 6d.; Wheel Peevor, 3 1/2 to 4 1/2; ditto (2nd); Wheel Peevor, 7 to 7 1/2; Goggin, 12s. to 14s.; Frongoch, 3 1/2 to 4. —Closing: Atlantic Firsts have become flat on a renewal of the rumour that there will be no cash payment on the 1st prox.—price is only 47 1/2 to 48. Brighton, A. now show a recovery of 2 on the day. Pennsylvania Six per cent. are 3 1/2 better, and the others 3s. Organs, 1 1/2 to 1 3/4; United Mexican, 5 1/2 to 5 3/4; Kapanga, 6s. 3d. to 7s. 6d.; Colorado, 3 to 3 1/2; Nevada Consols, 3 1/2 to 4.



THE LIST WILL OPEN on SATURDAY, 23rd,  
and CLOSE on or before WEDNESDAY,  
27th JUNE, 1883.

## THE WEARDALE LEAD COMPANY

(LIMITED).

CAPITAL . . . . . £200,000,

In 50,000 Shares of £4 each.

PAYABLE:—

10s. on application, and 10s. on allotment,

And the remainder, if required, in amounts of not exceeding  
Five Shillings per share, with intervals of not less  
than Three Months between each call.

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BENJAMIN BROUGHTON, Esq. (Deputy-Chairman  
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E.C.

BROKERS.

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DASHWOOD HOUSE, NEW BROAD STREET, E.C.

### PROSPECTUS.

This company has been formed to acquire a lease of  
the lead mines and smelting-works lately held from  
the Ecclesiastical Commissioners by W. B. Beaumont,  
Esq., M.P., situate in Weardale, Durham, and the  
adjoining district, comprising an area of about 85  
square miles.

The mines have been worked for about 300 years,  
and have returned large sums in profits, the output  
for the 21 years ending 1880 having been upwards of  
8000 tons per annum.

Since that time, in consequence of disagreements  
between the lessors and the lessee and of strikes  
amongst the workmen, operations at the mines have  
been spasmodically conducted.

The mines are believed to be the richest of their kind  
in England; the ores contain upwards of 8 ozs. of silver  
per ton, and the lead commands the highest price in the  
market; and, judging by the reports received, are such  
that, to all appearances, large returns and profits may  
be continued for an indefinite period, as out of this dis-  
trict of about 85 square miles a small area only has  
been explored or developed, and notwithstanding that  
the mines have been profitably worked for many genera-  
tions, they are still pronounced to be but in their infancy.

It may be found advisable to organise other companies  
to work portions of the grant in order to concentrate  
the energies of this company on the proper development  
of the mines now in work. The permission of the lessors  
would have to be obtained before this could be accom-  
plished.

A feature of importance in the formation of this  
company is that no price is charged for the mines.  
The lease will be for 60 years from the 1st of July,  
1883, direct from the Ecclesiastical Commissioners,  
title free, to the company, and on more favourable  
conditions as regards royalty, &c., than that paid by the  
former lessee.

The only charges against capital for the acquisition  
of this property will be a payment of £25,000, for  
tenant's plant and stores, &c. The preliminary and  
legal expenses, as sanctioned by the Commissioners,  
incident to the formation of the company up to date of  
allotment will be covered by a charge of 3 per cent. on  
the nominal capital.

Extracts from a correspondence between the lessors  
and lessee, published in the Northern Echo, of February  
18th, 1882, bearing on the productiveness of the mines,  
together with reports of J. B. Stewart, Esq., of Wanlo-  
head, mineral agent to the Duke of Buccleuch, James  
Blenkiron, Esq., of Arkendale, and Capt. John Trelease,  
of Healeyfield, are annexed to the prospectus.

If no allotment is made the deposit will be returned  
in full.

Prospectuses and Forms of Application for Shares can  
be obtained at the Offices of the Company, or at the  
Brokers or Bankers.

### Mining Correspondence.

#### BRITISH MINES.

ANDERTON TIN.—W. J. Bowhay, June 20: I can only confirm the reports  
made at the meeting on Monday. Everything proceeds with energy. The lode  
is as good as reported, the stamps are kept well to work, although some rain  
would help us to get through more stuff, which is of a fine quality. The  
engineers are busy with the engine, and the shaftmen dropping the pitwork.  
The masons have completed the engine-house, and are setting the boiler and  
building the balance-bob pit.

BEDFORD UNITED.—H. Trezise, June 19: North Lode: In the 115 east there  
is no change to report; judging from the appearance of the ground we cannot  
be far from the lode. In the 103 west the lode maintains its size and character,  
worth 12l. per fathom. The stope behind the end are without alteration. The  
tribute pitches are about the same value. M'Cullum's Shaft, Bridge Lode: The  
lode in the 62 east is looking exceedingly promising, producing good stones of  
ore of excellent quality. The lode in the same level west is not properly taken  
down, but as far as it can be seen there is no change to report. The 42 east is  
much the same as when last reported. The lode in the 50 east is not taken  
down, consequently there is no change to report. The several stopes at this  
level are without alteration.

BLUE HILLS.—R. Bennet, R. Harris, H. Gripe, June 20: The lode in the 66  
east end looks very promising, and is worth 7l. per fathom. The Baldu lode, in  
the 54 west end, is poor. In the east end, in this level, it is producing low  
quality tin stuff. The 42 east end is worth 6l. per fathom. The 30 east end is at  
present unproductive. Elsewhere there is no alteration to notice.

BWLOCH UNITED.—W. Northey, June 15: I can with pleasure inform you  
that we have plenty of rain to-day. It commenced raining last night about  
11 o'clock, and to-day we are busily engaged on the mountain gathering the  
water into the ponds and settling the water-course, which has been greatly  
damaged by the rats and moles during the dry weather. To-morrow we shall  
commence crushing and dressing up the ore stuff that is on the flooring, which  
will make about 8 tons of lead ore with what I have dressed in the bin. The  
8 tons can be dressed and delivered to Aberystwyth by to-morrow week. The  
long drought has been most unfortunate, as I have not been able to perform the  
work I agreed to; but this has been an unusual long drought for the time of year.  
From the present appearance I shall have no reason to complain of the want of  
water to drain the mine, and to commence to drive the 100 west, where, I  
believe, we shall open up a valuable lode of lead ore quicker than was at first  
anticipated, judging from the appearance and character of the lode for the last  
few feet driving. I have thoroughly overhauled the rods, bobs, &c., which are  
now in good repair, and will enable us to continue operations without let or  
hindrance. I have had all the plant and machinery and buildings gas-fitted  
and whitewashed. This has not only preserved the timber-work and walls, but  
has given a most cheerful appearance, and, with a little more rain, our ponds  
will be full, and I shall be able to push the work forward in full speed, which  
will be the height of my ambition.

CARN CAMBORNE.—W. C. Vivian, June 21: The 105 cross-cut south is with-  
out alteration. The 95, east of sump, on south lode, still cutting north through  
the lode. In the rise in the back of the 95, west of sump, on south lode, the  
lode is 3 ft. wide, composed of fluor-spar and yellow copper ore, yielding 3 tons  
of good ore per fathom. In the 40, west of engine-shaft cross-cut, on north lode,  
there are the same favourable appearances as were alluded to in my last, but the  
most productive part of the lode is now the central part, or rather more towards  
the north wall.

CARNARVONSHIRE GREAT CONSOLS.—W. H. Borlase, June 22: Since  
my last report we have made good progress in the sinking of the new shaft below  
the 24, now down 4½ fms. The lode continues very porous, and is producing  
more lead than at any time previous. I purpose to fix a plunger in the bottom  
of Ender's engine-shaft, which will do away with two drawing-lifts, and give  
plenty of 1½ in. pumps to continue the sinking of the new shaft. You  
will not doubt remember that in driving the 24, west of Ender's cross-cut, we  
met with good lead near the bottom of the end in several places, to prove which  
I have put down a little sink about 5 fms. west of new shaft, and am pleased to say  
I have opened up a few very nice branches of lead. In driving east of cross-cut  
we also had the best lead from the bottom of the level, which leads me to ex-  
pect our 34 fm. level when extended will show something good. Our prospects  
in the bottom of the new shaft are very encouraging. Yesterday we had to stop  
the engine to repair top of crank, which had worked loose. Water in fork  
again this morning, and working well.

CARNARVON COPPER.—J. Roberts, W. Darby, June 19: In the 46 (Cae-y-  
Groes) the ground continues to look very kindly, much the same as reported  
last week, and letting out a little more water. At the 20 (Garmon) the lode is  
worth fully 1½ ton per fathom.

CATHEDRAL CONSOLS.—S. Davey, S. Davey, June 21: There is no  
change worthy of special remark, except the lode in the 62 east is softer, yield-  
ing about the same amount of tin per fathom as when last reported. The  
COLLACORE CONSOLS.—Wm. Skelton, June 19: I was underground yester-  
day. The 93 is now cleared to the western vein. At this point I find the  
lode is standing by the side of the level, and there is some splendid copper ore  
in it. I shall be in a better position to see more about this in a few days. I  
also find we have a good lode of copper ore in the bottom of the 62 west. I am  
having the bottoms of all the levels searched, in order to see what has been left,  
and am finding more ore than I expected. I think that, in a little while, we  
shall be well pleased.

June 21: The 95 is cleared, secured, and tramroad laid a little beyond the  
western winze. At this point I find the lode is standing by the side of the level,  
and is from 5 to 6 ft. wide, containing very rich quality copper ore. As soon as  
the level is cleared for 8 to 10 fms. more, I shall have the lode taken down, and  
I hope then to send you a good report on it. The lode in the stopes in the  
bottom of the 60 is looking better, and, from present prospects, we are likely to  
have a good parcel of copper ore from this place. The two stopes in the back of  
the 40 are also turning out very well. There is no alteration to notice in the  
lode in the 40 cross-cut since I wrote you last.

CONWAY VALLEY FREEHOLD COPPER.—H. B. Vercoe, R. Edwards, June 21: Since  
my last report the mine has very much improved. The lode in  
42 south was then very hard and compact; it is now much more porous, and  
on the footwall there is a rich rib of blende, and nearer the hanging-wall a good  
mixture of copper 2 ft. wide, the latter we are saving for crushing and dressing,  
and keeping the blende for separate treatment. I am much pleased with the  
appearance of this end. It looks as if we had entered the run of ore seen in the  
30. In the 42 south we are cross-cutting the lode. We found the portion  
standing on the east side of the level to be much more cupreous than the part  
we were driving in of late, and I believe we shall yet find the richest portion  
further to the east. The lode here is opened on for 10 ft. in width, and if it  
maintains the same size as in the shaft, there yet remains 8 ft. to cut through.  
Dressing going on as usual, and a parcel of ore will be ready for sale by the end of  
this month.

CREIGIOG.—H. Hotchkiss, June 20: Meadow Shaft: To wait the arrival of  
more boards to finish casing this shaft, which were promised to-day. We are now  
raising pithead. This work will be finished to-morrow, when we shall go about  
to complete the fixing of ladders, casing, &c., in this shaft, which I hope to have  
accomplished early next week.—Eastern Workings: The 60 yard level is set to  
drive the month, by two men, at 110s. per fathom: the ground is more favour-  
able for progress, the lode, which is small, is kindly, and is letting out a little  
water these last few days. The winze to sink underneath the 60 is set to two  
men, at 160s. per fathom; the lode in the present bottom contains good quality  
blende throughout, the lode is much smaller, and has become more venal.  
We are preparing to put the rise to prove the lode east of the footwall in the 17;  
just over we had the best ore before communicating this level with the 60;  
this will be a good trial, inasmuch as we have nearly 30 yards of maiden ground  
between this and surface, and the lode at this point is over 6 ft. wide, contain-  
ing a sprinkling of lead ore and blende; set to two men to rise at 110s. per  
fathom.

CWM DWYFOR AND BRYNARIAN (Brynarian Mine).—J. Davies, June 21:  
Joseph's Level: We are making better progress now in driving this level; the  
water is issuing out freely, and I think we are getting near the lode.—Pensarn:  
The lode in the 20 driving north is looking better, and contains very fine spots  
of lead; water begins to come out from the end, and it is looking encouraging  
for further improvement.

D'ERESBY MOUNTAIN.—J. Roberts, W. Sandoe, June 20: At times during  
the month, as we have mentioned in our weekly reports and letters, we have  
had to suspend raising lead on the hanging side of the lode, owing to the large  
amount of superincumbent shale overlying the lode, which we have had to re-  
move and draw to surface out of the way, throwing our sampling a week later  
than it would have otherwise been. Still, we have managed to send a tolerably  
good supply of leadstuff to surface for treatment, and have sampled this week  
20 tons, which will be sold next week. The lode on the hanging side is much of  
the same value as the lode on the footwall, and we have had 2 tons of lead  
to the fathom as far as we have opened upon it, and if we find it to continue the  
same after having laid it open, or clear from the overlying shale, we shall be  
able to make very good returns. The lode in the heading side in the stope below  
the No. 5 continues without much alteration one way or the other. The lead is  
scattered through a very large portion of the lode, and by breaking it down in  
large quantities, or as it were, wholesale, it turns out a pretty fair quantity of  
lead. Owing to the protracted drought we are obliged to use the steam-engine  
to drive the couler.

DEVON FRIENDSHIP.—F. R. D. Daw, Wm. Gill, June 21: We are  
pleased to inform you that everything is going on satisfactorily at the mine.  
Next week a full report shall be sent you on our underground and surface opera-  
tions.

DEVON GREAT CONSOLS.—Isaac Richards, June 21: Wheel Emma: In-  
cluded Shaft: In the rise in the back of the 137 east rising is being carried by  
the side of the lode for more speedy progress.—New Shaft, New South Lode: In  
the 6 east the lode is 3 ft. wide, and yields 1 ton of copper ore and 1 ton of  
mudic per fathom.—Railway Shaft: In the 205 west of the south part of the  
lode the drive is being carried by the side of the lode for more speedy pro-  
gress. In the winze, Southcombe's, sinking below the 190 west, on the south  
part of the lode, the lode is yielding 2 tons of copper ore and 3 tons of mudic  
per fathom. In the 160 west, on the south part of the lode, the lode is from  
4 to 5 ft. wide, of a promising character, and worth 1 ton of copper ore and  
2 tons of mudic per fathom.—Watson's: The cutting of plat at the 190 at the  
engine-shaft is progressing fairly well. The 100, west of the engine-shaft, the  
lode is 4 ft. wide, composed of capel, quartz, mudic, and a little copper ore. In  
the 20, east of the western shaft, the lode is 14 ft. wide, of a very promising  
character, and worth 1 ton of copper ore and 2 tons of mudic per fathom. There  
is no alteration of importance at any of the other points of operation throughout  
the mines.

DEVON GREAT UNITED.—Isaac Richards, June 21: In the 120 fm. level,  
east of Wilkesford's shaft, the lode is 3½ ft. wide, composed of strong capel,  
quartz, peach, mudic, and a little copper ore. In the 120 fm. level, west of  
Wilkesford's shaft, the lode is from 2 to 3 ft. wide, yielding small quantities  
of copper and mudic ores, 1 fm. 1 ft. 6 in. has been driven at this level during  
the past week. In the cross-cut, north at the 60 fm. level, west of Watson's  
shaft on the middle lode, the ground is without alteration.

EAST BUTLACK.—Thomas Trahair, June 20: Since we commenced to sink  
on Thursday last we have sunk 8 ft.; the depth of the shaft is now 6 fms. The  
lode in the shaft has not been taken down since last Saturday. The lode in the  
east end is very much improved in size and quality. There is no change to  
notice in the west end since last reported on.

EAST CHIVERTON.—R. Southey, June 21: Since my last, on the 9th inst.,  
four men have been engaged stoping the back of the 100 fm. level on the coun-  
ter lode, 3 fms. north, where it formed a junction with the east and west lode,  
and, judging by present appearances, there can be little or no doubt but that  
the counter is the main lode in depth, and which will eventually prove the most  
productive of the two. In the south end, at the 100 fm. level, the two lodes are  
going just in the same direction, which is a proof the counter is the champion,  
and driving by six men, at 6l. per fathom; lode worth 15 cwt. of silver-lead per  
fathom. At the 90 fm. level we are still continuing the driving north on the  
counter; and driving by four men, at 4l. per fathom; it is advisable to push on  
this end, as there are in the upper levels a great many cross branches, which  
possibly may form a junction at this depth; the lode is large and well-defined,  
producing some good stones of silver-lead. I hope to commence sending away  
the 50 tons of silver lead on Monday next.

EAST CRAVEN MOOR.—David Williams, June 14: The 76 has been extended  
upon the main lode, west of No. 2 heave, 9 fathoms. The lode here appeared as  
if opening out into a good body of ore, carrying very congenial matrix, with  
branches and boulders of lead ore, worth fully 30 cwt. per fathom; but is again  
nipped, and consequently not looking so well. A stope in the back of level in a  
lode, 3 ft. wide, and carrying a good mixture of lead ore. The winze below the  
64 and under the perpendicular of No. 2 shaft is down 5 fathoms in a lode 3 ft.  
wide, and worth 25 cwt. of lead ore per fathom, wrought at by nine men at  
90s. per ton of dressed ore. We have five pitches in the back of the 64 and 54  
wrought respectively at 100s. per ton of dressed ore, and two on surface dressing  
halvans.

GAWTON.—George Rowe, George Rowe, jun., June 16: The lode in the 117  
east is carried 7 ft. wide, composed of copper, spar, sulphur, and arsenical  
mudic, with a little copper ore to the amount of 9 tons per fathom. The lode in  
the trial winze, sinking below the 117, is yielding 12 tons of arsenic and sulphur  
mudic, with a little copper ore per fathom. The lode in Nos. 1, 2, 3, and 4  
stopes, in the back of the 117, is without change during the past week. The  
winze sinking below the 105½ is communicated with the rise put up in the back of  
the 117 below. Nos. 1 and 2 stope, in the back of the 70, is yielding 8 and 10 tons  
of sulphur and arsenic mudic per fathom respectively.

GLASGOW CARADON CONSOLS.—W. Taylor, W. J. Taylor, June 18: The  
shaftmen have cut ground for bearers and cistern at the 114, and are now fixing  
standing lifts in same. We hope to complete this in a few days, after which  
the sinking will go on without delay.—South Lode: The 114 east is looking a  
little better, with more ore, and a kindly appearance. The stope in the back  
of this level are now set on tribute.—Harvey's Lode: In the 114 east the lode is  
still disordered, worth about 5l. per fathom; we are fully expecting this end to  
improve. The 114 west is worth 5l. per fathom; this part of the lode is now  
turning off north towards the north branches, and we hope they will soon  
unite, when we expect a very much better lode. The stope in the back of this  
level are worth 10l., 12l., and 8l. per fathom respectively. The 90 west is  
looking splendidly and looking well. At Rosie's level, the 90 west is  
looking improved for blende, and an increase of water issues from the forebush  
east.

GREAT HOLWAY.—June 21: Level Engine: Nos. 1, 2, 4, and 5 pitches, if any  
change, have much improved for lead, &c., especially Nos. 2 and 5 pitches; the  
former appears entering the same productive run of ore ground as being worked  
upon in No. 1 pitch, and is now worth 2 tons of lead per fathom; the latter,  
No. 5, is yielding splendidly and looking well. At Rosie's level, the 90 west is  
looking improved for blende, and an increase of water issues from the forebush  
east.

GREAT LAXEY.—W. H. Rowe, June 20: The 259 end driving north of W. 127  
shaft has varied but little in value for some time past, being still worth 12l.  
per fathom. There is, however, evidently more lode standing on both sides,  
but the chief object now is to push on the driving and effect a communication  
with the winze from the 247, now sinking both for ventilation and stopes, and  
about 10 fms. distant from the present end. The lode in the 247 end north has  
much improved in character, beginning to yield some ore, and from the fact of  
the end being now about immediately under the 247, we may look for a substantial improve-  
ment here very soon. The winze sinking below the 247 is worth 12l. per fathom. The  
stope in No. 15l. per fathom. The part of lode carried in sinking the engine-  
shaft below the 235 continues to be worth 15l. per fathom, and the 235 end  
south 7l. per fathom. The winze in this level north is worth 22l. per fathom.  
A new stope in top of 220 north 30l. per fathom. The rest of the stopes and  
workings in the deep mine are unchanged, and in the 100 south we find by  
special dialling, &c., the present driving is pretty nearly in the proper track  
of the lode, and when quite through the disturbed channel of ground we expect  
the lode will have reformed again in regular order.—Dumbell's: The 230 end  
north 15l. per fathom. The two stopes in roof of this level have improved, being  
now each worth 30l. per fathom. The winze in 215 level continues poor; a  
stope in sole 20l. per fathom. The roof stopes 15l., 30l., and 17l. per fathom re-  
spectively. The 200 end north is getting through the nip, and the lode again  
yielding ore to the value of about 9l. per fathom. Two stopes in roof of this  
level are each worth 20l. per fathom, and a considerable improvement has taken  
place in the 135 end &c., which is now worth fully 25l. per fathom. The 170 end is  
at present yielding saving stuff only. A winze sinking in this level is worth  
30l. per fathom. There is nothing new to remark of the other stopes in this  
section of the mine. The lode in the 70 end driving south of middle ground  
rise is worth 15l. per fathom. Nothing further yet met with in cross-cutting in  
the adit end north.

GREAT WEST CHIVERTON.—John Curtis, June 21: The engine-shaft is  
sunk 3 fms. 4 ft. below the 10; lode 2 ft. wide, with spots of lead and mudic,  
but not enough to value.

GREAT WHEAL WORTHY.—Joseph Prisk, June 21: We are making good  
progress in draining the water and clearing the shaft on the middle lode. We  
are down about 10 fms., and from all the information I can get, 5 fms. more will  
reach the bottom, where we expect to find a good tin lode. I hope in another  
four weeks this work will be accomplished, and the value of the property greatly  
enhanced.

GREEN HURTH.—James Polglase, June 14: The 44 north has improved for  
lead, worth 4 tons per fathom; the ground is easier, and the lode is gone down  
in No. 1 winze. The stope in back of the 44 is worth 3 tons per fathom. The 44  
south is unproductive. In No. 1 winze the men have resumed the sinking, and  
hope soon to reach the 44 north; the vein is worth 2½ tons per fm. No. 3  
winze, below Standage, is worth 3 tons per fm. The stope in back of Standage  
is worth 3 tons per fm. The east level, from Standage level, is much the same  
—in hard ground. The rise in back of the 30, on No. 2 vein, is without any par-  
ticular change. The new watercourse to Crookburn is expected to be finished  
this week. Dressing going on as usual.

James Polglase, June 15: I am glad to state that the vein the north end  
(the 44) is now worth 7 tons per fm.

HAREHOPE GILL.—George Robson, June 16: Since June 2, No. 3 drift has  
been driven 6 fms., and it is still almost free from water. No. 2 drift has been  
driven 2 fms., in which we have a small feeder of water. Preparations for com-  
mencing to fill out the shaft are approaching completion.

HEALEYFIELD.—J. Trelease, June 15: Good progress has been made in the  
Dewent level this past week. We have laid about 10 fms. of rails, and have  
reached another small run, which will only detain us a few shifts, then we will  
get forward again. We have no change of any importance in our tribute or  
tutwork bargains since my last report. We hope to complete the walls of the  
new engine-house next week. We have sampled 31 tons of ore this week.  
Dressing going on regularly, and machinery working all right.

HINGTON DOWN CONSOLS.—Thomas Richards, June 20: The engine-  
shaft has been sunk during the past week by nine men 3 ft.; total depth below  
40, 9 fms. 1 ft. Good progress is being made, and the ground continues  
favourable. The 40 east, by four men, has been driven 3½ ft.; total distance  
from the shaft, 15 fms. 2 ft. 6 in.; the lode is without material change, contain-  
ing capel, quartz, arsenical mudic, wolfram, peach, and plan, with a little  
rich yellow copper ore intermixed, and is promising.

KILLFRETH.—J. Michell, J. Tamblin, June 21: Engine-Shaft: We are  
getting on very fairly with forking the water below the 70; we have about  
15 ft. more to reach the 80. There is no change in the 70 east or west since  
last reported. The lode in the 50 end east is 3 ft. wide, worth 12l. per fathom.  
The stope in the back are worth 12l. per fathom each, in this level, driving  
west of cross-course, the lode is 1½ ft. wide, worth 5l. per fm. Two stopes in  
the back, east of cross-course, 10l. per fathom each. In the 30 east the lode is  
1 ft. wide, at present unproductive. Three stopes in the back are worth 8l.,  
15l., and 20l. per fathom respectively.—Hawke's Shaft: In the 40 end, west of  
shaft, the lode is 2½ ft. wide, but at present unproductive. Two stopes in the  
back, east of shaft—one east of cross-course worth 10l. per fathom, one west  
of cross-course worth 20l. per fathom. The lode in the winze sinking below this  
level east of shaft, is worth 12l. per fathom.

KIT HILL GREAT CONSOLS.—Isaac Richards, June 21: At the tunnel level  
the ground is much as last reported, slightly improved. The distance driven  
during the past week is 2 fms. 2 ft. In the north engine-shaft the lode is 4 ft.  
wide, composed of capel and quartz, with blende, mudic, and small quantities  
of copper and tin ores. The distance sunk during the past week is 2 ft. In the  
75 fm. level, west of the north shaft, the lode is 6 ft. wide, composed of capel  
and quartz, with wolfram, blende, mudic, and a little tin ore. In the 75 fm.  
level, east of the north shaft, the lode is 3 ft. wide, yielding a little copper ore.  
In the cross-cut driving south at the 75 fm. level, east of the north shaft, the  
ground consists of granite of a close, hard nature. The distance driven during  
the past week is 2 ft. 6 in. In the cross-cut driving north at the 62 fm. level,  
east of the north shaft, the ground continues favourable for progress, 1 fm. 6 in.  
having been driven during the past week. In the 48 fm. level, east of the north  
shaft, the lode is 3 ft. wide, composed of capel, quartz, and a little copper ore.  
This drive is at present suspended, it being considered desirable to confine our  
operations more particularly to the deeper workings in this part of the mine.

LANGFORD.—R. Goldworthy, June 20: Setting Report: To sink the engine-  
shaft, by 12 men, at 5 fms. stent, at 26l. per fathom; lode 4 ft. wide, of a prom-  
ising character, being spotted with mudic, blende, and copper. To drive the 50  
cross-cut south, by four men, at 5l. 10s. per fathom. To drive the 50 east, by  
four men, at 5l. 10s. per fathom; lode 6 ft. wide, composed of capel, friable spar,  
mudic, spots of copper, and letting out water freely. To drive the 20 cross-cut  
north, by four men, at 6l. per fathom. We have just passed through a branch  
about 4 in. wide, with a gentle underlie north about 1 ft. in 6 ft., containing a  
little mudic and spots of copper. All other things are going on satisfactorily.

LEADHILLS.—T. Newbigging, June 13: Lead ore dressed, 70 tons 10 cwt.  
Pig-lead bars made 408 tons from fume; pig-lead sold, 290 tons. It will be some  
day next week when we finish the fume smelting. Surface operations are going  
on as usual with fine weather.

LLANDDEGLA.—H. Hotchkiss, June 20: There is no important change to re-  
port on from this mine to-day. The sinking of the shaft is going on regularly.

LOVELL (THE).—Joseph Prisk, June 21: We are making good progress in  
cutting plat and barrow-road at the 14 preparatory to sinking for another level.  
The lode in the bottom of the shaft is 6 ft. wide, worth 12l. per fathom, and im-  
proving in depth. In the 14, east of shaft, the lode is 6 ft. wide, worth 8l. per  
fathom. At the 14, west of shaft, the lode is 5 ft. wide, and worth 7l. per fm.  
The lode in the new air-shaft is also 5 ft. wide, and worth 6l. per fathom; we  
are laying down the flat-rods from the pumping-wheel, and hope to attach main  
to the pumps in the air-shaft in two weeks from this date, when the sinking  
will be resumed. Our prospects have not been so good for several years, and I  
think the shareholders may now look forward to a good remuneration for their  
patience and outlay in the development of this property.

MELANEAR COPPER.—J. Gilbert, June 20: In the 30 cross-cut, driving  
south of Gundry's shaft, the ground is favourable for driving, and we are ac-  
tually meeting with small veins of spar and mudic, and we are making  
good progress in driving the 70 cross-cut, north of the main lode east of Gundry's  
shaft, and the ground continues to be very promising in appearance. In the



110, driving west of shaft on the main part, the lode is 5 ft. wide, yielding 2 1/2 tons of ore per fathom, letting out a good deal of water, and looking very bright. The part of the lode caving in the 110, west of shaft on south part, is 4 1/2 ft. wide, yielding 1 ton of copper ore per fathom, and also worth 82 per fathom for tin. We have recently cut through the lode, and found it to be about 7 ft. wide. In the 110, driving east of shaft, the lode is 4 ft. wide, yielding 1 ton of copper ore per fathom and some very good work for tin, and looking promising. The lode in the 120, driving east of shaft, is 3 ft. wide, and yielding 2 tons of ore per fathom; but the ground is much harder than usual. The lode in the 120, west of shaft, is 3 ft. wide, and yielding some saving work for copper ore; but at present is rather disordered by cross branches of spar. In the winze in bottom of 60, on south-east part, the lode is 6 ft. wide, and yielding 2 1/2 tons of ore per fathom. The lode in rise in the back of 110, at Gundry's shaft, is 4 ft. wide, and yielding 1 ton of ore per fathom. The lode in the 90, driving east from the old engine-shaft, is 1 1/2 ft. wide, and yielding a little copper ore; but not sufficient to value. In the winze in bottom of 100, west of the old engine-shaft, the lode is 5 ft. wide, yielding good stones of copper ore, and is worth 82 per fathom for tin. We have set 11 pitches to 27 men, at an average tribute of 8s. 9d. in 12. Our sampling for this month is computed 611 tons copper ore.

**MID-DEVON.**—James Neill, June 16: A Shaft: The pumping machinery was stopped three days in early part of week to fix in two cranks to axle of water-wheel in connection with doubling the rods to strengthen the machinery; we have all timber on mine for this work, and the necessary portion for pulley-stands and bobs, &c., is nearly prepared, and it will be fixed as quickly as possible. Water is now 7 1/2 ft. below the 70.—O Shaft: The 45 stope, worked by four men, shows at western end more congeal strata, and strongly coated with ore. In highest point there is an open fissure dipping west and north, and strata above appears to be easier—more friable garnet and chlorite, with black ore disseminated throughout. The 50, rise worked by two men, has not changed. The 50 cross-cut, worked by four men, has branches of ore, and what appears to be the main one is taking a more east and west course, and is surrounded by congeal strata. The ore is chiefly yellow, and is intermixed with arsenical mudstone. Ore raised during week 1 ton 12 cwt.

**MONA CONSOLS.**—Wm. Bowden, June 13: I have set the shaft at 22. per fathom. The shaft is very hard, and it looks to me that hardness and solidity is the prolific nature of this lode for copper. The lode in the bottom of the shaft now appears to be driven or heaved together by the hard rock that I spoke of last week, and of the nature for copper. I never saw the lode looking more kindly; it is looking handsome. There is scarcely any killas in the lode, all lode, and is full of beautiful greens of copper, and the water very coppery.

**MOUNTS BAY CONSOLS.**—W. Argall, John James, John Rowe, W. H. Argall, June 16: Sydney Cove: We have still a good deal of water in the shaft sinking on No. 1 lode, and have to the men to hold to the rise at 72. per fathom. We are having good stones of tin from this sinking, and are opening up good tribute ground. The rise against this shaft has been set at 52. 10s. per fathom. The lode in the shaft and rise varies in value from 22. 10s. to 42. per fathom. We have seven tribute pitches working on this lode at 13s. 4d. in 12. We have commenced to drive two cross-cuts at the 10 m. level new engine-shaft at 22. 2s. 6d. per fathom each, and within the next two months we hope to cut three lodes. The end driving on No. 2 lode at the adit level has been disordered, but is improving and worth about 24. per fathom. We have three tribute pitches working on the lode at 13s. 4d. in 12. On Nos. 4, 5, 6 lodes we have five tribute pitches working at 13s. 4d. in 12. We hope soon to have more water for the dressing-floors, when our returns of tin will increase.—Pembroke: We are making good progress in the forking of this mine, and are now down to the 50 m. level.

**NEW CARADON.**—N. Richards, June 20: No. 4 lode in the adit level, driving east of shaft, maintains its size and strong masterly appearance, and as some of the other lodes laid open in the adit cross-cut show traces of copper ore so the surface of the lode and the lode and surrounding strata in which the lodes are deposited are similar in character to those promising lodes by which this set is almost surrounded, I consider this piece of ground is deserving of a spirited trial.

**NEW KITTY.**—William Vivian, June 21: We are making good progress in sinking Thomas's shaft. We have not broken any of the lode in the past week, as we are sinking by the side of the lode. In the cross-cut driving north of engine-shaft, at the 50, the end is letting out large streams of water. I am daily expecting to reach the lode.

**NEW TERRAS.**—We are making fair progress in the erection of the stamps, and also in the laying out for dressing floors. There is a great deal of water flowing from the 18 cross-cut north, from which we think that we are near the lode. All other work progressing favourably.

**NEW TRUMPER CONSOLS.**—The following telegram has been received:—Owing out satisfactorily, breaking good quantity of copper, and bottom looking well.

**NEW WEST CARADON.**—N. Richards, June 20: We have suspended the driving on Clyma's lode at the 38 until the cross-cut is advanced far enough to allow the men to work both points without hindering each other. The ground in this cross-cut appears to be highly mineralised, and we are often meeting with veins and small branches, but we shall not stay to open out on them, but push on the cross-cut to prove the ground before us. Nos. 3 and 4 lodes are producing stones of copper ore, but not enough to value. A rise in the back of the 30, on the main lode, and a stope in the bottom of same will yield together 2 tons of copper ore.

**NORTH GREEN HURTH.**—Jas. Polglase, June 14: The vein in the deep adit level, bearing about 35° east of south, is much improved in appearance, producing spots of lead. There is every prospect of further improvement. The air in the south level, from deep level, is very light, and the men will put a rise through to the surface for ventilation. A cross-cut level is commenced in the Hospital property.

**NORTH HERODSFORD.**—T. Trelease, June 21: We have a little increase of water in the 117, but other change notices the stope in the back is still yielding 10 cwt. of ore per fathom. I have put two men to rise against the winze in the 82, where the lode is worth 11 cwt. per fathom for the length of the rise 12 ft. I have also set the stope in the winze to two men; the lode will yield 12 cwt. per fathom. We have still good ground in the 80 end and have been breaking some good stones of ore in the past week, and the end is now looking promising for an early improvement.

**NORTH PENNITHAL.**—Stephen Davey, Wm. Polkinghorne, June 21: Setting Report: Highbarrow shaft is sunk to the 150; the men are now engaged taking down pent-house, dividing, casing, and putting down skip-road, per bargain, 45s. This will be completed as expeditiously as possible. The 132 to drive west, at 6s. per fathom; driven 3 fms. 1 ft. 7 in. lode 2 1/2 ft. wide, producing occasional stones of copper. The 120 to drive west, at 9s. per fathom; 1 1/2 ft. at present disordered. The 58 cross-cut to drive north, at 14s. per fathom; driven last month 8 ft. 8 in. ground hard. The rise in the back of the 108, at 5s. per fathom; raised last month 2 fms. 6 in. lode unproductive. We calculate that within two weeks from this point we shall commence to cross-cut the lode, and from the nature of the ground we expect better results.

**NORTH TREKERRY.**—Taylor and Son, June 21: Saturday last being our pay and setting, we set the following bargain:—The deep adit level to drive west of cross-cut on No. 1 lode north of Scorer's Consols engine-shaft, by six men and one labourer, at 5s. per fathom, where the lode is 3 1/2 ft. wide, and worth 30s. per fathom. Since our last report we have driven west of the same cross-cut on the No. 2 lode 1 fm. 1 ft. 6 in., and at this distance the lode is 3 ft. wide, and worth for tin 2s. 6d. per fathom. At this point the lode has to all appearance heaved the main part of the lode north, and in this direction there is a large stream of water issuing from the north side of the level, consequently we have put the men from this end to drive further north at 4s. 5s. per fathom to cut the main part of the lode, which we are fully convinced is still before us. The smiths, carpenters, and masons are now in readiness for the rock-drilling machinery.

**OKEL TOR.**—H. Bulford, J. Rodda, June 21: The lode in the 85, west of Gerry's cross-cut is not looking so well as reported last week, the other points of the mine are unaltered.

**OLD GUNNISLAKE.**—Wm. Skewis, R. C. Secombe, June 20: There is no change to report in the adit level west. This end is temporarily suspended, and the men taken to drive (with boring machine) west from the winze, underneath the ore passed through in the adit level. We hope soon to be able to issue a more favourable report.

**PAYES.**—T. Mitchell, June 21: The lode in the 65, east of cross-course, continues to look much the same as when reported last week. The ground in the trial at the 45, east of Gwend's shaft, is of a very kindly nature, consisting of light killas, and speedily for driving.

**PENHALLS.**—S. Bennett, J. Goynne, June 20: There is no change to notice in the 30 west end. The 70 east end is worth 7s. per fathom. The 60 east end 6s. per fathom. The 50 east, on the south section of the lode, 4s. per fathom. On the Balduh lode the 42 west end is producing some low quality tinastuff, but not of much value.

**PHENIX AND WEST PHENIX UNITED.**—John Truscott, June 21: Setting Report: Old Sump Shaft: The 130 to drive west by two men, at 11s. per fathom; lode producing a little tin, but not sufficient to value. To stope the back of this level by four men, at 3s. per fathom; lode worth 14s. per fathom. The 120 to drive west by two men at 6s. per fathom; lode worth, for part carried, 6 ft., 8s. per fathom. No. 1 stope, in back of this level, by six men, at 3s. 5s. per fathom; lode worth per fathom 16s. No. 2 stope, in back of this level, by four men, at 4s. per fathom; lode worth per fathom 15s. To stope the back of the 110 by four men, at 4s. per fathom; lode worth per fathom 10s. To stope the back of the 100 by four men, at 4s. per fathom; lode worth per fathom 10s. To rise in the back of the 80 by four men, at 6s. per fathom, in the gossan part of the lode. No. 1 stope, in back of this level, by four men, at 3s. 15s. per fathom; lode worth per fathom 22s. No. 2 stope, in the back of this level, by six men, at 3s. 5s. per fathom; lode worth per fathom 14s. No. 3 stope, in the back of this level, by four men, at 3s. 10s. per fathom; lode worth per fathom 25s. The 50 to drive west by four men, at 4s. per fathom; lode worth per fathom 10s. To stope the back of this level, by six men, at 5s. per fathom; lode worth per fathom 10s. The 40 to drive east by two men, at 2s. per fathom; lode worth per fathom 6s. The 40 to drive west by two men, at 4s. per fathom; lode worth per fathom 8s. To stope the back of the 30 by four men, at 3s. 10s. per fathom; lode worth per fathom 14s. To stope the back of the 20 by four men, at 3s. per fathom; lode worth per fathom 16s.—Waterloo Mines: New Engine-Shaft: The 80 to drive east by six men, at 5s. per fathom; lode unproductive. The 60 to drive west by four men, at 12s. per fathom; lode poor. The 50 to drive west by four men, at 11s. 10s. per fathom; lode worth 15s. per fathom. No. 1 stope, in the back of this level, by four men, at 4s. per fathom; lode worth 14s. per fathom. No. 2 stope, in the back of this level, by four men, at 4s. 10s. per fathom; lode worth 12s. per fathom. No. 3 stope, in the back of this level, by four men, at 4s. per fathom; lode worth 12s. per fathom. The 30 to drive west from end of rise by two men, at 8s. per fathom; lode worth per fathom 10s.—Stowe's Shaft: The 70 to drive east by four men, at 12s. per fathom; lode worth 6s. per fathom. No. 1 stope, in the back of the 60, by six men, at 2s. 5s. per fathom; lode worth 25s. per fathom. No. 2 stope, in the back of the 60, by four men, at 2s. per fathom; lode worth 25s. per fathom. Twelve pitches were set at tributes varying from 5s. to 13s. 4d. in 12. for tin and copper.

**PORT NIGEL.**—J. Mitchell, June 21: Good progress is being made in driving the 75 west; the lodestuff in the south side of the lode contains a little blende,

and in the north side there are occasional stones of lead; price per fathom for driving 4s. 5s. Progress is also being made in driving the 35 east, but have not yet cut through the lode part of it, only being carried in the end, which does not contain any lead at present; price for driving 3s. 12s. 6d. per fathom. The 80 west end is in a little harder ground, with less lead in the end than there was, and lode is smaller but very well defined, containing blende and very kindly spar, and it ought to carry a good branch of lead soon; price for driving 3s. 7s. 6d. per fathom. In the 80 east there is still a large stream of water coming from the lode; the lode is still very large, containing occasional stones of lead, and is a little harder, but still requires timber in the back and south side; price for driving 3s. 17s. 6d. per fathom. The lode in the 68 east is looking very kindly, containing good stones of lead; price for driving 3s. 10s. per fathom.

**POLOREBO.**—W. H. Martin, June 20: Setting Report: Engine-Shaft:—The 30 east to drive by six men, at 7s. 10s. per fathom. The lode is getting larger and produces stones of tin. South cross-cut to drive by four men, at 6s. per fathom. The cross-course has been very changeable in its composition and harder during the last two months. Judging from the character of the ground, I think we are near the lode. Highbarrow shaft to sink below the 17 by nine men and three boys, at 18s. per fathom, to complete the sinking 13 fathoms under the 17. From the indications in the bottom of the shaft there is every prospect of the 30 opening up a new section of profitable tin ground. The tributers are preparing a parcel of tinastuff for sale.

**POLROSE.**—W. Bennett, June 20: We have taken down more of the lode in the engine-shaft since my last report, and find no material change to notice. The lode in the eastern end of the shaft continues about 2 1/2 ft. wide, containing a great deal of malleable and little tin; there is a horse killas here and there between the lode and a south branch, also composed largely of malleable and carrying a little tin. Judging from the underlie of the lode above, I am inclined to think this branch is a part of the lode, and must have gone off about 5 fathoms above the 112 where we had some good tin, which was at the point of the horse, and if so I fully expect we shall have an improvement when the two parts of the lode come together again.

**PRINCE OF WALES.**—S. Roberts, June 20: The lode in the 102 east, though it maintains its size, is still disordered, and at present without value, but there is evidently a change taking place in the ground, which leads us to expect an improvement in the lode very soon. In the 102 west the lode is 3 ft. wide, worth 12s. per fathom. We have started a rise to-day in the back of this level, by four men, on a lode 4 ft. wide; worth 15s. per fathom for tin and copper ore. In the 90 west the No. 1 north lode, which is 3 ft. wide, composed of a beautiful soft part and good patches of copper ore, has struck or forming a junction with the Prince of Wales lode; the both lodes together are 9 ft. wide. I consider this to be a very promising end. No change in any other point of operation since last report.

**ROMAN GRAVELS.**—A. Waters and Son, June 21: The 125, north of new engine-shaft, is yielding stones of lead ore. The 125 south is worth 1 ton per fathom. The 110, north of flat-rod shaft, is at present in narrow lode, yielding stones of ore. The 110, south of new shaft, is worth 2 tons per fathom. The 95, south of said shaft, is worth 2 tons per fathom on middle division of the lode. The 80 south is worth 2 tons per fathom, and improving. The winze below this level south is worth 3 tons per fathom, down nearly 6 fathoms. The winze below the 65 south, on hanging wall division of the lode, is worth 4 tons per fathom. There are 24 stopes throughout the mine, worth together about 50 tons per fathom. Surface work going on in the usual way.

**RUSSELL UNITED.**—John Bray, June 21: The lode in Matthew's shaft continues to look promising, producing small portions of copper and malleable, increasing in size as we get down in depth. Nothing new at Stephen's shaft, as we are still sinking in the country.

**SORTIDGE.**—Wm. Skewis, June 21: The ground in the 50 cross-cut is looking better for mining and a little softer for driving. The 40 cross-cut and cleared 30 fms. It is still full of water, and taking a good deal of timber to secure it; still we shall press to work it as fast as possible until the end is reached. The tin sold this week realised 51s. 2s. 6d. per ton.

**SOUTH CARADON.**—W. George, June 20: Setting Report: Rule's Shaft: Nine men are engaged in cutting ground for bearer and cistern preparatory to fixing plunger at the 210. To drive the 210, east of Rule's shaft, by six men, with the boring machine. The lode is 3 ft. wide, yielding 1 1/2 tons of ore per fathom; the ground continues very favourable.—Kilbow's Shaft: To drive the 130 east, by six men with the boring machine. The lode here continues small, but has a more promising appearance than the driving was resumed. We are giving this point particular attention, and are making very satisfactory progress. To drive the 130 east, by six men, at 9s. per fathom; set last month, where we are pleased to say, the ground has improved, and the lode continues to look very promising, still yielding full 2 tons of ore per fathom. This is a very important point, and is lying open a profitable run of ground. A rise in the back of this level, by four men, at 5s. yielding 2 tons of ore per fathom. To drive the 130 east, by six men, at 9s. yielding 1 1/2 tons of ore per fathom, and looks favourable to further improve as the driving is extended. To stope the bottom of the 150, by four men, at 2s. 15s. yielding 2 tons of ore per fathom. To drive the 120 east, by four men, at 9s. 10s., yielding 1 ton of ore per fathom with a very promising appearance. To sink a winze below the 120, by six men, at 9s., yielding 1 ton of ore per fathom. Here we have got down into rather a tight rig of ground, in which the lode is smaller than when we commenced, but this we do not expect to continue long, and therefore have given them a short stint. To drive at a rise in the back of the 113 by four men, at 6s. yielding 1 ton of ore per fathom. To sink a trial winze below the 110 by two men, at 4s.; the lode is small to commence, but this is being done more particularly for ventilation, and to enable us to work the backs from the level below to a better advantage.—Caunter Lode: We have eight men employed in stoping the bottom of the 110 for the purpose of bringing the water from Kittow's to Holman's engine; this is set at 2s., and 2s. 10s. per running fathom. In addition to the above we have working 82 men in 40 pitches at the following rates: 13s. 8d. to 13s. 4d. in 12.

**SOUTH CONDUROW.**—Wm. Rich, W. Williams, Humphrey King, June 20: The lode in the winze below the 54, west of Marshall's shaft, is at present small and poor. The stope in the back of this level is worth 10s. per fathom. The rise in the back of the 66 west is worth 7s. per fathom. The 78 end west yields low quality tinastone. The 93 end west is unproductive at present. The 70 end west of Plantation carries a little tin. The winze sinking below this level is worth 7s. per fathom. The 93 end, east of King's, is in a hard bar of ground. The end east is worth 10s. per fathom. The stope in the back of this level is worth 10s. per fathom. The 70 m. level end east is worth 10s. per fathom. The stope in the back of this level is worth 15s. per fathom. The 60 fathom level end east is worth 7s. per fathom. The stope in the back is worth 10s. per fathom. The 50 end east is without tin to value; we have not yet fully cut through the lode in this end. Two stopes in the back of the 50 are worth 7s. and 12s. per fathom respectively. The rise in the back of the 40, west of cross-course, is worth 10s. per fathom. The 30 end west is without tin to value. Two stopes in the back of this level are worth 15s. per fathom respectively. The lode in the back of the 20 cross-course is worth 12s. per fathom.

**SOUTH DAREEN.**—Henry James, June 21: The following bargains were let on Saturday for one month:—To drive the 130 east, by six men, at 16s. 10s. per fathom. To drive the 130 west, by six men, at 9s. 10s. per fathom. To drive the 120 east, by four men, at 9s. 10s. per fathom. To stope back of 120 east, by six men, at 3s. 15s. per fathom. A stope, by four men, at 10s. per fathom. To drive the 120 west, by four men, at 9s. 10s. per fathom. A stope in the back of the 120 west, east of tin to value. Two stopes in the back of this level are worth 15s. per fathom, at 7s. per fathom. No. 2 stope, by four men, at 7s. per fathom. To sink a winze in the 120 west, by six men, at 14s. per fathom. To drive the 110 east, by four men, at 8s. per fathom. Six tribute pitches in the upper levels, by 16 men, at 8s. per ton for lead ore, and 30s. per ton for copper ore; tributers to pay 20s. per ton for dressing. Filling of the skip, by three men, at 7s. 9d. 100 skips. Landing of the skips, by two men, at 5s. 8d. per 100 skips. Drawing of the stuff, by two men, at 7s. 10s. per month. The spalling of the orestuff for the crusher, at 11s. per month. In the 130 east, the last few feet in driving has been small and not so good for lead, but it is again opening out better, and is worth 10 cwt. silver-lead ore per fathom. In the same level west we are not yet under the good ore ground seen above. The 120 east is worth 1 1/2 ton of silver-lead ore per fathom. A stope in the back is worth 1 ton of silver-lead ore per fathom. The lode in the 120 west has improved, and is worth 1 ton of silver-lead ore per fathom. A stope in back, east of winze, is worth 1 1/2 ton of silver-lead ore per fathom. No. 1 stope, in back of winze, is worth 1 ton; No. 2 stope, 15 cwt. The lode in the winze sinking in the 120 west is worth 1 ton of silver-lead ore per fathom, and 10 cwt. copper ore per fathom. The lode in the 110 east is poor. The tribute pitches produce fair average orestuff. We sampled on Saturday 100 tons of copper ore for sale on July 6.

**SOUTH DEVON UNITED.**—W. Hooper, June 21: Setting Report: The 110, east of Brook engine-shaft, has been driven during the past month 2 fms. 3 ft.; reset to six men at 11s. per fathom. The lode is without much change in character or appearance, being full 1 1/2 ft. wide, producing in places very rich copper ore, worth 14s. per fathom. The lode is very promising, and one of the best in my opinion but yield large quantities of ore. No. 1 stope, in the back of this level, is reset to two men, at 2s. 10s. per fathom; the lode is 3 ft. wide, worth 7s. per fathom. No. 2 ditto is reset to four men, at 3s. 15s. per fathom; the lode is 5 ft. wide, worth 8s. per fathom. No. 3 ditto is reset to four men, at 3s. 10s. per fathom; the lode is 4 ft. wide, worth 7s. per fathom. The men in No. 4 stope have removed to rise against Martin's shaft; stented the malleable, at 8s. per fathom, where the lode is 3 ft. wide, and worth 8s. per fathom. No. 1 stope, in the back of the 110 west, is reset to six men, at 5s. 10s. per fathom; the lode is 5 ft. wide, worth 9s. per fathom. No. 2 ditto, to two men, at 4s. 4s. per fathom; the lode is 4 ft. wide, worth 6s. per fathom. Martin's shaft has been made good during the past month 4 fms. 2 ft., which is now completed to the 100. We have also set the shaft to sink below this point, at 18s. per fathom, stented 5 fathoms, or communicate with the rise in the back of the 110. Seeing we have driven through a lode varying in value from 7s. to 20s. per fathom in the 110 for some distance we consider the position of this shaft to be very good for working the eastern part of this property, from the fact of all the stopes ore found in these mines incline east, therefore I would advise this shaft being pushed on with all possible force to deeper levels, when I have no doubt from the general character of the lode that it will be found exceedingly productive. The 70, west of old sump-shaft, has been driven during the past month by the side of the lode 1 fm. 3 ft. 3 in.; reset to four men, at 10s. 10s. per fathom; on taking down the lode we found it contained fluor-spar, malleable, and good stones of copper ore—a very promising looking lode. The adit level west of old sump-shaft has been driven during the past month 2 fms.; reset to two men, at 4s. 4s. per fathom; the lode is 5 ft. wide, producing fluor-spar, gossan, with spots of malleable and copper ore.

**SOUTH PENNITHAL.**—Stephen Davey, June 21: Setting Report: Walton's Engine-shaft: Men to cut plat. put in all necessary timber, to secure the same for bargain, 35s.; this work is being pushed on with all possible dispatch. The flat-rod shaft to sink below the 130, at 39s. per fathom; sunk for the month 2 fms., now below the level 16 fms. 4 ft.; ground congenial for the production of mineral.

**TANKERVILLE GREAT CONSOLS.**—Arthur Waters and Son, June 21: Tankerville Mine: Main Lode: The 232 east is in a lode 4 to 5 ft. wide, worth 1 ton of lead ore per fathom. The 232 west is in a lode 2 ft. wide, charged with stones of ore. The pitch in 220 west is worth 1 ton per fathom.—North Lode: The 232 east is in a lode 3 ft. wide, charged with saving stuff for lead and blende. The stope in 222 west is worth 2 cwt. of lead ore per fathom. Stope in same level east is worth 30 cwt. of lead ore per fathom. Stope in 132 west is worth 3 tons per fathom. The 132, west of cross-cut, is in a lode 3 ft. wide, producing some good orestuff for the dressing-floors.—Pennerley: The stope in the 120 west, on Warm Water lode, is worth 30 cwt. per fathom. The new shaft below the 80 is down 5 1/2 fms.; lode worth 2 tons per fathom. The two stopes, one east and

the other west of shaft, below 80 are worth together 4 tons per fathom. The two stopes below 25, east of cross-cut, are worth together 2 1/2 tons per fathom. The two stopes in back of 80 on east and the west of rise are worth together 4 tons per fathom.—Potter's Pit: The new shaft below 91 west is down about 25 fathoms, and we are now within 3 to 4 ft. of the big cavity, which looks like a great engine-shaft. There is a lode in present bottom of the sump worth 2 1/2 tons of lead ore per fathom; but the north-west end of the cavity shows a much more productive course of ore. There is no sign of water in the bottom we are glad to say.—Bog Mine: The 185, west of engine-shaft, is driven 3 1/2 fms.; strong good-looking lode, charged with stones of soft galena, and letting out a strong feed of water. No. 1 winze below 175 shows a kindly ore lode. The water is now about 5 fms. 2 ft. below the 175 in the ore pits, and going down about 6 in. daily. No. 12 pit is worth 2 1/2 tons, No. 13 pit 2 1/2 tons, No. 14 pit 1 ton and improving, and No. 15 pit 4 to 5 tons lead ore per fathom. Other points and pitches as for some time past. We have to-day sampled as follows:—Bog, 100 tons lead ore and 70 tons blende; Pennerley, 100 tons; and Tankerville, 30 tons.

**TRESAVEAN.**—J. Prisk, W. Edwards, June 18: We are pleased to report the mine is drained to the 100, and no time will be lost in sending the drop lift below this. We have explored some of the levels and find them in good condition and some promising lodes standing intact. We are pushing on the ladder way at William's with a view of getting to the 100 in this part of the mine as soon as possible, and shall forthwith put some men to look up the copper and tin pitches said to be here unwrought. The tubwork bargains and tribute pitches are without change since our last report, and the work underground and at surface is being pushed on with all dispatch. The 90 in. engine and all other machinery continues to work well.

**WEST CARADON.**—N. Richards, June 20: A rise and stope in the back of the 38, on Vivian's north lode, will yield 2 1/2 tons of copper ore per fathom. Taylor's lode, in the back of this level, will yield 1 ton of copper ore per fathom. Gilpin's lode, in this level, on which we are driving west, is much improved in size and appearance, it is now 2 1/2 ft. wide, and will yield about 2 tons of copper ore per fathom, and where we are now driving there appears to be a good lode gone down in the bottom of the level; this I consider has much enhanced the value of the mine. This lode in the adit level, driving west of Hallett's cross-course, is slightly improved, being now 2 ft. wide, and yielding over 1 ton of copper ore per fathom. The winze is also looking better, producing some good stones of ore. A rise and two stopes in the back of this level will yield in the aggregate 4 tons of ore per fathom. We have placed a pair of men to drive a midway level between the 17 and adit level, and hope soon to get an improvement. We have also a pair of men clearing and securing the 50 towards Jope's lode; this, of course, will take some time to accomplish.

**WEST CRAYVEN MOOR.**—D. Williams, June 21: The new cross-cut from Blackthorn adit level to reach main lodes has been extended a total distance of 25 fathoms. In the 37, east of new east shaft, the lode is 2 ft. wide, composed of spar, sulphate of barytes, intermixed with good branches of lead ore. In the 30, east of new east shaft, the lode is 2 ft. wide, and producing 25 cwt. of lead ore per fathom, wrought at 80s. per ton of dressed ore. A stope below the 20 is in a lode 2 ft. wide, and producing 15 cwt. of lead ore per fathom, wrought at 80s. per ton of dressed ore. On surface all is going on well.

**WEST CREBOR.**—John Andrews, June 20: The shaftmen are now busily engaged in repairing the shaft, which will be completed by the latter part of this week, when the sinking of the shaft will be resumed. In the 62 west we are driving by the side of the lode, consequently there is no change, nor is there any change in the 62 east.

**WEST DEVON GREAT CONSOLS.**—G. Rowe, June 20: The lode in the 70, west of the engine-shaft, is yielding very strong arsenical mudstone, spotted with copper ore, and the ground of a good description of clay-slate highly mineralised and good for progress. The lode in the 38 is 20 in. wide, principally composed of sulphur and arsenical mudstone impregnated with good quality copper ore. **WEST GONAMEN.**—N. Richards, June 20: I have taken the men who were engaged in driving west on the main lode at the adit level, and put them to cut a small pit; this will not occupy them many days. We shall also erect a small horse-whim for drawing away the stuff at once, which will be an improvement upon our present mode of working, and when accomplished will save time and expense. The lode above referred to has the same promising appearance as for some time past; it is everything that can be desired except a bunch of ore.

**WEST KITTY.**—W. Vivian, June 21: In the 30, driving east, the lode is worth 8s. per fathom. In the 12, driving east, the lode is worth 12s. per fathom. In the 72, driving west, the lode is very much improved in appearance, and is 3 ft. wide, producing saving work for the stamps. In the 60, driving east of the rise, the lode is worth 15s. per fathom. In the 60, driving east of cross-cut, the lode is worth 20s. per fathom. No change to notice in the stopes since last report.

**WEST PHENIX.**—R. Ghyas, June 21: Since our last report we have struck the lode at the 57, and have driven through it 6 ft.; but as yet no appearance of the iron mole. A very nice-looking lode, composed of capel, quartz, and peach, but nothing to value. At the 32 we are making a little better progress; the part of the lode carried just as last reported.

**WEST WHEAL TOLGUS.**—John Gilbert, June 20: Richards' Shaft: In the 105, driving west of shaft, the lode is 4 ft. wide, composed of spar and malleable, and occasional stones of copper ore; it is very well defined, letting out an increased quantity of water, and presenting a promising appearance. In the winze sinking below the 105, west of shaft, the lode is 5 ft. wide, and yielding 2 tons of ore per fathom. The lode in the 85, driving west of shaft, is 3 1/2 ft. wide, yielding stones of malleable and copper ore, and letting out a very strong stream of water, and the ground is a little easier for driving. The lode in No. 1 stope in bottom of the 105, west of shaft, is 6 ft. wide, yielding 3 1/2 tons of ore per fathom; worth 20s. per fathom. The lode in No. 2 stope in the bottom of the 105, west of shaft, is 6 ft. wide, yielding 4 tons of ore per fathom; worth 22s. per fathom. All the machinery at surface and underground is in good working order.

**WHEAL CREBOR.**—H. Phillips, P. D. Holman, June 19: The lode in the new shaft sinking below the 132 is 2 ft. wide, containing arsenical mudstone and stones of copper ore. The lode in the 132, driving east of No. 2 winze, will yield 10 tons of good quality copper ore per fathom. We have commenced to stope in the back of this level just behind the end; the lode will produce 10 tons of good quality copper ore per fathom. The stope in the bottom of the 120, east of winze, will yield 16 tons of good ore per fathom. The stope in the back of the 120, east of rise, will yield 3 tons of ore and 2 tons of malleable per fathom. The stope in the back of the 45 will yield 2 tons of ore and 2 tons of malleable per fathom. All other points are without change.

**WHEAL GRENVILLE.**—T. Hodge, June 21: The 205 cross-cut is extended north about 11 ft. towards the lode. The 190 east end produces stamping work; we expect this end to improve soon. The 135 east end is in a wide lode; the part carried is worth 9s. per fm.—neither wall. The 120 west end is worth 10s. per fathom. We have started the 130 west end, the lode in which holds out good promise. The stopes throughout the mine are without any particular change to notice.

**WHEAL UNY.**—W. Hamblay, W. Prophet, J. White, June 21: Good progress is being made in driving the 193 end west. There is a change in the character of the lode in the 182 end west; the same is producing a little more tin. The lode in the 182 end east is 10 ft. wide; we have set the men to-day to drive on the course of the lode at 8s. per fathom, and worth 10s. per fathom for tin. There is no other change to notice in the mine since last week. Everything is going on satisfactorily.

#### THE DE BEERS MINING COMPANY.

In reference to the report and balance-sheet of this company, to which



again resumed the repairs to the walls and embankment of top reservoir. We have also relaid the whole column of 8-in. pipes from the plunger-pump on the lowest floor up to the top service reservoir. We continue to keep the full force of men emptying our silts, and the water is leaving the pits and re-entering the brook in a very satisfactory condition. The machinery is in good working order.—W. H. WILLIAMS.

### TO THE METAL TRADE.

**FOR COPPER, TIN, LEAD, &c., apply to—**  
**MESSRS. PELL, BOYLE, AND CO.,**  
**SWORN METAL BROKERS,**  
**ALLHALLOWS CHAMBERS, LOMBARD STREET, LONDON.**  
 (ESTABLISHED 1849.)

**JOHN G. EAST,**  
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**COPPER ORE, COBALT, MANGANESE, CARBONATE OF**  
**BARYTES** ESTABLISHED 1866.

**HENRY NUTT,**  
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 PURCHASER OF  
**LEA ASHES, LEAD SLAGS, SULPHATE OF LEAD, TIN**  
**ASHES, TERNE ASHES, AND ALL REFUSE CON-**  
**TAINING TIN AND LEAD.**

**HENRY WIGGIN AND CO.,**  
 (LATE EVANS AND ASKIN),  
**NICKEL AND COBALT REFINERS,**  
**BIRMINGHAM**

### The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, JUNE 22, 1883.

IRON.	£ s. d.	£ s. d.	TIN.	£ s. d.	£ s. d.
Pig, 60 lb., Clyde...	2 7 0	—	English, ingot, f.o.b. ...	97 0 0	—
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At the works, 1s. to 1s. 6d. per box less for ordinary; 10s. per ton less for Canada; 1X 6s. per box more than 10 quoted above, and add 6s. for each X. Terne-plates 2s. per box below tin-plates of similar brands.

**REMARKS.**—Business in metals continues to be more or less restricted, and it is evident that as yet no thorough recovery has been effected in the demand for consumption and shipment; but, at the same time, that little extra cheerfulness in the tone, caused chiefly from speculation, and to which we have made reference upon a previous occasion, still continues to diffuse itself throughout certain branches of the trade, and helps to lessen the depression, and to give a more favourable appearance to some of the markets. However, there does not appear to be very much confidence in the stability of prices, as after each successive rise there is a strong tendency on the part of operators to secure whatever profits are practicable rather than run any further risk of the market. It is not so much the general demand that regulates buying for speculation; that in great measure can be foreseen, as the regular requirements of the trade may be pretty accurately ascertained by making reference to old returns, and adding thereto a proportionate increase for the growing wants of the trade; but it is the question of supply to which operators look with more anxiety, for upon this there is little or no certainty as to what quantities may be coming forward. It is said of some metals that over-production is at the root, and the principle cause of the depression of those markets, and this is given as the chief reason of the current low prices, and that the only relief that can be afforded to the markets is to curtail the production, which, however, producers do not appear inclined to do.

At first it may seem difficult to understand how it is that supplies are kept up at present prices, which are generally complained of as unprofitable; it is urged that surely it is better to turn out only three-quarters of the present output at a profit than to continue producing at the present rate at a positive loss. But the question is, Do present prices leave a positive loss? It is true they are said to be unremunerative, but by that it may be gathered that they do not leave an adequate return to manufacturers and producers, and hence supplies are maintained, so that sellers may, if possible, effect profits on selling large quantities, which at ruling rates they could not do by merely making limited sales, for the expenses incurred in producing in bulk are very much lighter proportionately than in making in only small quantities. At the same time, it may be argued that the higher prices which, in all probability, would be realised if production was curtailed, would fully or, perhaps, more than compensate for any extra expense in producing; but then comes a difficulty almost impossible to overcome, and that is to get all the manufacturers and producers to agree not to increase their make beyond certain limits. Several of them often form a combination, not only with the object of minimising the production, but also to sustain prices; but experience has shown that this, while giving temporary success, has, nevertheless, in the end failed, for the combination, although frequently supported by a large majority of suppliers, does not include the whole of them, and, in consequence, most orders in the market flow to those sellers who prefer to be independent, and will not be bound by various combinations, and agreements, as they are able to sell at prices slightly under those quoted by other sellers, and hence they are often busy, whilst the others are extremely slack.

**COPPER.**—During the greater part of the past week there has been a hardening tendency in the price of Chili bars, quotations generally having advanced about 2s. 6d. per ton per day. The charters last Monday were announced as 2500 tons for the first half of the present month, and notwithstanding that this quantity was heavy, it produced no detrimental effect upon the market. On the contrary, prices, as we have already stated, stiffened to some extent, and have since continued to grow stronger, on account of less hesitation to buy, and a combined firmness on the part of holders unless full prices were paid. Somewhat heavy charters were doubtless generally anticipated, as the last few that have been advised have been rather light, and to this may be attributed the slight influence that the heavy charters have produced upon the market on this occasion. The bi-monthly returns of Chili produce show an increase of 286 tons in the total visible stock in first and second hands in Liverpool and Swansea, and amounts to 26,833 tons, against 26,547 tons on the 31st ult., the imports during the first fortnight of the month having been 1111 tons, and the deliveries 825 tons, while the imports of other kinds of copper were 1178 tons, and the deliveries 794 tons. These returns cannot be considered otherwise than unsatisfactory, and what with them and the excess in the charters holders have certainly good cause to congratulate themselves that they have succeeded in not only maintaining their market but also in obtaining slightly higher rates. With regard to manufactured there is not much change to record, prices are nominally unaltered, but business for shipment is reported to have been transacted at slightly reduced rates, chiefly, however, in yellow metal for export to the Indian markets.

**IRON.**—Certain branches of this trade are decidedly showing symptoms of improvement, some descriptions of manufactured being in much better request, and prices are a shade firmer, while buyers who for so long past have hesitated to effect purchases are here and there beginning to buy more freely, and appear more willing to pay sellers' rates. At the same time there is no general improvement, and orders for most descriptions are still slack for both the home and shipping trade. Some of the advices from the manufacturing centres are favourable and encouraging, but the report which comes from Glasgow with regard to pig-iron

cannot be viewed as satisfactory, for while very little variation has taken place in prices, the returns show unfavourable shipments in comparison with those for the same time of last year, and a further increase in the public stock. Until the last week or two the public stock had continuously declined for a very long time without any check whatever, sometimes by thousands of tons per week, at others by hundreds, at all events the reduction was so largely affected as to be one of the principal causes of the firmness in the market. Now, however, there is a complete change, and the public stock during the past fortnight has been augmented by several thousand tons, and unless a great alteration be made during the next few days the statistics at the end of the month will be very adverse, and would consequently tend to check the speculative demand even to a greater extent than it is at the present time. In makers' iron the demand continues slow, and quotations generally are the same as they were a week ago, but there are a few brands which are somewhat cheaper for both Nos. 1 and 3.

The following are the latest returns from the principal iron centres, and from which may be gathered the state of the trade just now. The Glasgow warrant market opened on Monday steadily, and business was done from 46s. 10d. to 46s. 11½d., while on Tuesday there were numerous transactions between 46s. 11d. and 47s. 1d., closing at 47s. On Wednesday the market was very inactive, and the quoted price was 46s. 11d., while yesterday the market remained quiet, and a small number of transactions took place between 46s. 11½d. and 47s., and the closing figure to-day is 47s. The shipments last week were 13,255 tons, against 15,308 tons for the same week of last year, or a decrease of 2053 tons, and which makes the total shipments for the whole of this year 287,126 tons, against 289,555 tons for the corresponding period of last year and 252,212 tons for the similar time of 1881. There is one less furnace in blast, the total now being 114 against 115 last week, while the public stock has been increased by a further 2586 tons, and now amounts to 383,801 tons, against 381,115 last week. The imports of Middlesbrough iron into Grangemouth last week were 5280 tons, against 2251 tons for the same week of last year, being an increase of 3029 tons, and which makes a total increase for the whole of this year as compared with last of 32,960 tons.

The Cleveland market is reported more or less disorganised, and, owing to makers having resolved to maintain their price at 40s. for No. 3, but little business has been transacted. Second-hand lots are firmer, and are quoted from 39s. 3d. to 39s. 6d. Makers have determined, if necessary, to curtail the production at the end of the month, but it is thought that they may experience considerable difficulty in maintaining their prices—what with the general quietude in the iron trade and the stronger tendency of Scotch pigs. The shipments that have been made are not satisfactory, those for the whole of the month being rather over 50,000 tons, the quantity last week being 21,661 tons. Manufactured is in dull demand, and prices are steady, ship plates being quoted at 6½, angles at 5½, 12s. 6d. bars at 5½, 15s., and puddled bars at 72s. 6d. It is satisfactory to find in the Middlesbrough district the public stock of pigs has been for the time being, nevertheless a few orders have been placed for Scotch America, the Cape, and the Baltic. The report from America shows that there is some recovery in the price of pigs, but ordinary forge and refined iron are slightly lower, and no change has been made in prices for Scotch or Cleveland hematites.

**TIN.**—This week there has been a dragging market for tin, and the tendency has continued against holders, although on Tuesday last there were some symptoms of recovery; but this improvement was not long maintained, and since, prices have been dwindling downwards. By the course of the market this week it would appear that holders had less confidence in the stability of the market; it gives the idea that the tin is about to fall out of all proportion to its value, and in some cases of 1s. 4d. Derbyshire sorts being quoted at 47s. 6d. to 48s. 9d., and Lincolnshire at 48s. 9d., while Tredegar hematites are firm at 65s. There is not much vitality upon the Birmingham market, but the tendency is towards increased firmness. Makers are better off for work than they were a short time back, and are less disposed to sell unless full prices are paid. Market bars rule at 7½, 10s., and others at 6½ to 6½ 5s., pigs being offered at 4½s. to 5½s. 6d. per ton. Advices from Wales state that the works there are still fairly busy, but the prospect is considered dull, and orders are less plentiful than they were a short time back, nevertheless a few orders have been placed for Scotch America, the Cape, and the Baltic. The report from America shows that there is some recovery in the price of pigs, but ordinary forge and refined iron are slightly lower, and no change has been made in prices for Scotch or Cleveland hematites.

**PHOSPHOR BRONZE.**—The demand has subsided, and there are plenty of sellers of ordinaries at 15½ to 15½ 2s. 6d., and specials at 15½ 2s. 6d. to 15½ 5s. per ton.

**LEAD.** is firmer, and the price for Spanish has been quoted at 12½ 15s. to 12½ 17s. 6d., and the quotation is still strong at 12½ 15s. per ton.

**STEEL.**—A moderate business is still doing at unaltered prices.

**TIN-PLATES.**—A fair number of transactions are still being carried through, and quotations are steady.

**QUICKSILVER.**—The importers of Spanish have now reduced their price to 5½ 7s. 6d. and effected fair sales; the demand is, however, not brisk.

The **MINING SHARE MARKET** appears to be in a general state of stagnation; there is scarcely any business doing either in speculative or dividend mines, quotations in consequence are not to be relied upon, and to effect sales is matter for negotiation. Judging from the past, when these periods of depression have invariably been succeeded by increasing excitement, we may hope soon to have a change for the better, and one or two good discoveries in mines may accelerate the improvement. Those dealt in have been Bratsberg at an advance, Wheal Agar, Prince of Wales, Wheal Crebor, West Crebor, New Caradon, South Caradon, East Blue Hills, South Penstruthal, and a few others.

**TIN** is firmer, but there has been no change in the standards for ore in Cornwall since the fall of 2½ on the 9th, very little doing in shares. Blue Hills, ½ to ¾; Cook's Kitchen, 30 to 31; Carn Brea, 7 to 7½; Dolcoath, 55 to 57½; East Pool, 43 to 44; at the meeting a dividend of 1½ per share (6400£) was declared. The accounts showed a profit on the quarter's working of 6914£, and a credit balance of 8265£. The tin sold, 351 tons, realised 16,757£; copper, 196£; sundries, 1203£. The costs for three months amounted to 11,422£, or nearly 4000£ per month. The engine-shaft is now down 13 fms. below the 200, and a winze below this level is worth 55£ per fathom. East Blue Hills, 6s. 6d. to 8s. 6d.; at the meeting, particulars of which will be found in another column, the accounts showed a balance of 1167£ 13s. 5d. over every liability. The tin sold since the previous meeting realised 1464£ 17s. 8d., making over 2000£ worth raised above the adit level, and as a good course of ore had been gone over in the bottom of the adit, and the adjoining mines on the same lode had made very large returns below their adits, and it was left to the committee to erect a small engine and sink deeper. To do this would take about 500£ out of the balance in hand, and as in the meantime it is expected the mine will make profits from above the adit, a great mine may be opened out below.

North Blue Hills, ½ to ¾; at the meeting here the accounts showed a credit balance over liabilities of 783£ 2s. 10d. An engine goes to work this week, and in a few days the bottom of a shaft, in which there is said to be a fine copper lode, will be seen. Killifreth, 2½ to 2¾; New Kitty, 2 to 2½; South Condurrow, 8 to 8½; South Crofty, 7 to 7½; South Frances, 9 to 10; Tincroft, 7½ to 8; West Bassett, 5½ to 6; West Frances, 2 to 3; Wheal Peavor, 4 to 4½; Wheal Agar, 16 to 16½; Wheal Bassett, 5½ to 6; Wheal Grenville, 6 to 6½; Wheal Kitty (St. Agnes), 1½ to 1¾; Wheal Peavor, 3½ to 4½; Wheal Uny, 3 to 3½. At East Uny a call of 5s. per share was made. The accounts showed a loss of 1369£. At the Wheal Jane meeting a call of 10s. per share (6000£) was made. The West Godolphin accounts for the meeting on Tuesday show a credit balance of 109£. The costs for three months have been 1138£; tin sold, 10 tons, 605£; copper, 77£. Call made last meeting 714£. Mounts Bay, 6s. to 8s.; Tresavean, ½ to ¾; Goodvever, 1 to 1½. West Polbrean, 1 to 1½; at the meeting a call of 2s. will be made. Trevaunance, 2½ to 3. West Kitty, 13 to 13½; there is an improvement in an important level, the 72 going west.

**COPPER.**—At the Cornish Ticketing on Thursday the standard for ore advanced 1½. The quantity of ore sold realised on the average 2½ 19s. 6d. per ton; average produce, 5½; standard, 101½ 12s. The sales here realised 522£ 19s. 6d. Bedford United, 1½ to 1¾. Devon Great Consols, 3½ to 4; the sale here (366 tons, realised 1492£ 12s. 6d. Gunnislake (Clitters), 1 to 1½; Marke Valley, ¾ to 1; Mellanear, ¾ to ¾; Mona Consols, 1 to 1½; New Cook's Kitchen, 5 to 5½. Prince of Wales, ½ to ¾, and in request. South Penstruthal, 1½ to 2; West Caradon, ½ to ¾; West Crebor, 6s. to 8s. Wheal Crebor, 2½ to 2¾;

the points in operation yield in the aggregate 41 tons of ore per fm. The sale of ore on Thursday (398 tons) realised 1528£ 10s. 6d. South Caradon ½ to ¾; according to the setting report the 210 end from Rule's shaft is worth 1½ ton of ore per fathom. The points valued are worth in the aggregate 1½ tons per fathom, in addition to which 82 men are working in 40 pitches, at prices varying from 9s. 6d. to 13s. 4d. in 17. As this, we believe, is the first setting report of the new company, it must be very satisfactory to the shareholders. Langford, ½ to ¾; the lode in the shaft is 4 ft. wide, and looking very promising for a course of ore even before it reaches the junction with the Silver lode. Devon Friendship, 4s. 6d. to 5s. 6d.; the agents report that everything is going on satisfactorily, and a full report will be given next week. Sortridge, 2s. 6d. to 3s. 6d.; the ground in the cross-cut at the 50 is better. Carn Camborne, 1½ to 1¾; Collacombe Consols, 4s. 6d. to 6s. 6d.; New Caradon, 6s. to 8s.

**LEAD** mines continue flat, with scarcely any business doing. Vans are quoted 5½ to 6; Great Laxey, 16 to 17; Roman Gravels, 7½ to 7¾. Tankerville, 3s. to 5s.; they have sampled this week 230 tons of lead ore. South Darren, ¾ to ¾; the 120 east is worth 1½ ton of silver-lead ore per fathom, and the same level west 1 ton. They sample to-day 100 tons of copper ore. Coed-y-Fedw, 1½ to 1¾; East Rose, ½ to ¾; Great Holway, 5 to



ample, the properties comprised in the deed of trust being the freehold estates and mines, consisting of upwards of 1000 acres, with the plant and machinery thereon. It is explained that the total interest required for the whole issue of the debentures is only 2500*l.* per annum, or, with a sinking fund of 4000*l.* per annum, 6500*l.* less than 1-15th of the undermentioned estimated revenue. It will be seen, therefore, that taking into consideration the security offered, the rate of interest, the bonus on redemption, the forward state of the mines, and the option of conversion into preference shares, the investment now offered presents advantages seldom obtainable on a mining security.

The Spanish Copper Company with a capital of 75,000*l.* in shares of 10*l.* each has been formed to purchase for 75,000*l.* (in deferred shares) the lease in perpetuity at 200*l.* per annum rental the Fronteriza and San Vicente, and the right to take La Carolina and La Infanta Mines at the same rental. The mines form part of the great copper and sulphur group so well known to British capitalists, being situated in the province of Huéla, in Spain, in the district lying between the famous mines of Rio Tinto and Tharsis on the one side, and San Domingo (Mason and Barry) on the other. A considerable sum has already been expended by the vendor in opening up these mines, and in preparing for mining operations on a moderate scale; but the deposits of ore appearing to be far larger than was supposed, the vendor has agreed to transfer the mines to this company, with a view to secure the capital essential for their rapid and successful development on a large scale. The plant, machinery, and stock of ores now on the spot are included in the purchase, and will be transferred to the company without any additional charge. The properties have been surveyed by the late Mr. R. C. May and Mr. Sopwith, and a report on the probable results of their development, and on the profits to be expected from their working, has been made by Mr. A. Grothe, formerly manager of the Tharsis Mine. In Messrs. May and Sopwith's joint report the quantity of ore in the San Vicente Mine is estimated at 1,375,000 tons, and in a later report Mr. Sopwith considers it probable that there are in the Fronteriza Mine 960,000 tons. These estimates comprise the mineral down to a depth of 157 metres, to which Mr. Grothe, who has large practical experience, considers it quite practicable to work without difficulty or disproportionate expense. It also appears that the poorer ores in these mines are on the average similar to those at the Tharsis, San Domingo, and Rio Tinto Mines; and as to the richer ores, six samples of ore from the Fronteriza Mine have been analysed, one by Dr. Percy, from the old interior workings, was found to contain 15.81 per cent. of copper, the other five, assayed by Mr. Frederick Claudet and Mr. John F. Penrose, showed an average of 9.34 per cent. of copper, the highest showing 12, and the lowest 5½ per cent. The San Vicente Mine though less rich in copper is found to contain from 3 ozs. to 5½ ozs. of silver. It is intended to export the richer ores to this country, and to treat the poorer kinds on the spot by calcination and precipitation, or in such other manner as may be found advisable. Mr. Sopwith, in his report, brings out the annual profit to be derived from working the Fronteriza Mine at 40,000*l.* and from the San Vicente Mine at 7500*l.*, making a total annual profit of 47,500*l.* Mr. Grothe estimates the annual profits from the two mines at 51,000*l.* on a total output of 60,000 tons. It is remarked that of all the mining companies incorporated in this country, those established for working copper have been among the most successful, while the group of mines surrounding the Fronteriza and San Vicente stand almost unrivalled for the wealth they have produced. The directors see no reason why the Spanish Copper Company should not, in proportion to its smaller size, be equally successful with the best of these. The district is the same, and the ores appear to be if anything superior to those of some of the surrounding properties.

The British Mékarski Improved Air-Engine Company has issued its prospectus for placing the balance of the ordinary share capital—28,265 shares of 1*l.* each. It will be remembered that the company was formed to acquire the English patents for Mr. Louis Mékarski's system of utilising compressed air. The patents are now vested in the company, and the consideration paid for them has been 1000 founders' shares (entitled to 20 per cent. of the net profits of the company) issued to the Société Générale des Moteurs à Air Comprimé (Système L. Mékarski), and 15,735 Ordinary fully paid-up shares of 1*l.* each issued to the original concessionaire and the shareholders in the Compressed Air-Engines Company for their interests in the patents. An agreement having been made between this company and the London Street Tramways Company for working the Caledonian road Tramway with compressed air cars, Preference shares to the amount of 60,000*l.* were subscribed to meet the expenses of starting the contract. These Preference shares are entitled to a preference dividend of 5 per cent. per annum, and after payment of 5 per cent. to the Ordinary shares, to rank *pari passu* with them against any surplus profits. In accordance with the contract with the tramway company the requisite compressing machinery has been erected, and one air car, specially designed by Sir Frederick J. Bramwell, has been constructed under his superintendence, and is now working regularly and successfully. The contract requires that seven more cars shall be put on the line, and in order to provide these, and for future requirements, the directors have determined to issue the balance of the Ordinary shares of 1*l.* each. Careful calculations have been made which show that the entire eight cars, when constructed and in full work, will alone earn sufficient (after deducting the one-fifth profit payable on the founders' shares) to return not only 5 per cent. on the Preference but also a substantial dividend on the entire issue of Ordinary shares. If such results are obtainable when the system is at work on one tramway only, it must be evident that much more favourable results can be obtained from an extension of the company's operations into the wide field open to them. The Mékarski system has stood the test of continuous working on the Nantes Tramway for more than four years, where it has proved so thoroughly efficient that the system is now being extended to other towns in France. Being perfectly free from any fire or smoke, the employment of the Mékarski system of compressed air in tunnels or underground railways will obviate the noxious fumes hitherto deemed so objectionable.

The Henriett Mining and Smelting Company have convened a meeting for Wednesday for the purpose of receiving from the directors a report as to the position of matters between the company and the vendor, and considering a proposal of the vendor to purchase from any shareholder desirous of disposing of the same his shares at 20s. (being *par value*) for each share, and to pass such resolutions in relation thereto as may be deemed advisable.

The Bagillt Zinc Smelting Company are inviting subscriptions for a second issue of 6000 shares of 1*l.* each, at 12½ per cent. premium. The authorised capital is 30,000*l.* The present issue of shares is made in order to erect other furnaces, and increase the production of the metal. The present yield is about 25 tons of spelter per week, and the extent of the works equal to over 100 tons per week. The directors at their meeting on June 11 declared an interim dividend of 5 per cent.

Bedford United, 1½ to 1½; important discoveries are daily expected on both the north and Bridge lodes. The sale of copper ore on Thursday realised 522*l.* 19s. 6d., which, with the mundie, will leave a good profit on the month's working.

Botallack, 5 to 7; the advance is attributed to a considerable improvement having taken place in the mine.

Devon Great Consols, 4 to 4½; the lode in the railway shaft below the 190 fathom level west is 5 ft. wide, and worth 5 tons of mineral per fathom. The sale of copper ore this week realised about 1500*l.*

Devon Great United, ½ to ½; the 120 fathom levels east and west are looking more promising.

Kit Hill Great Consols, ½ to ½; better progress has been made during the past week, the drive having been in the tunnel at the rate of about 9 fms. per month, and a large lode (6 ft. wide) is being driven on at the 75 fm. level, west of north shaft, with excellent prospects of meeting with a valuable deposit of mineral.

Owen Vean, 1½ to 1½; the agents report the south lode to be standing very rich in tin, samples of which taken from various parts have been sent to Mr. Claudet for assay. Mr. Thomas Collingwood Kitto has recently made a second inspection of the mine, and his report will be found in another column. It is most favourable, and coming from an authority so well known for his caution it augurs well for the future of the property.

South Devon United, ½ to ½; the lode in the 110 fm. level east continues to be worth 14*l.* per fathom. The sale of ore this week has brought a better price, realising 657*l.*

South Wheal Frances; shares have advanced to 9½, 9½, owing, it is said, to the considerable increased sales of tin now being made, and to the expectation of still better sales, and which will leave a good monthly profit.

Richmond, 7 to 7½; the week's run was \$15,000 from 310 tons of ore, with one furnace. During the week the refinery produced doré bars to the value of \$20,000. The superintendent's report on the present condition and advance of the prospecting and dead work for the week ended May 28 states that the 300 north-west drift from south-east has been run 25 ft. through limestone stained with iron. Commencing at a point 172½ ft. in from south-east drift. The 1050 north-west drift from station has been extended 8 ft. Total 702 ft. In very hard limestone. The 1050 north-west drift from above has been run 26 ft. Total 70 ft. In limestone, following on fissure.

Ruby and Dunderberg; price, old shares, 1½ to 1½; new, 1½ to 1½. The weekly report does not mention any change of moment at the mines. A drift had been commenced from the Dunderberg under the old workings of the Home Ticket, the ground being favourable for ore. The shipments of ore from the Home Ticket during the week were larger than they have yet been, amounting to 145 tons. The usual telegram received on Tuesday advised continued good returns, both in the quantity and quality of the ore.

California Gold, 1 to 1-16; this week's mill run of 323 tons yielded 680*l.*, and smelting ore sales realised 67*l.*

Chile Gold, ½ to ½; advices have been received to the effect that the actual production of gold during May was 2815 ozs., 24 days, 40 stamps. The reports from the mine continue satisfactory.

Kohinoor and Donaldson, 1; the report is full, and denotes that work is being actively pressed forward. The Champion Mine appears to present highly favourable indications for the discovery of still larger quantities of good grade ore.

La Plata, ½ to 1; the debentures issued by this company have, writes a correspondent, been applied for twice over. They bear 10 per cent. interest, with coupons attached, payable half-yearly in London, and as they are redeemable by annual drawings at 10 per cent. premium, and the security offered being considered undoubted, continual applications are still being made for them; but the directors have closed the list some time since, so that these debentures should now command a premium of 10 to 20 per cent., for, according to latest advices, the company is earning a profit of 25,000*l.* to 30,000*l.* per annum. This will enable the directors to pay a dividend of 5 or 6 per cent. as soon as the new shares are issued, which on the present price of the shares would yield over 10 per cent. interest, and as the company has been transferred to English management, and the superintendence in Leadville being under Mr. Rueben Rickard, late manager of the Richmond Consolidated Mining Company, augurs well for the future success of the La Plata Company. It would be well if some other companies could be so speedily extricated from their difficulties, and brought under similar successful management.

Organos Gold, 1½ to 2; these shares, which opened at the beginning of the week with considerable firmness, have since relapsed upon the issue of a "bear" circular, which has had the effect of bringing forward sellers. The price appears, however, to be firm again, and but little buying would bring about a considerable rise. It is understood that advices of a satisfactory character have been received from the mine, the condition and prospects of which are regarded as a subject for congratulation to the shareholders.

Asia Minor, ½ to ½; it is stated that various operations, both at surface and underground, are progressing very satisfactorily, and increased shipments of ore are now being made.

In Lead Mine Shares the amount of business done continues very limited, and prices remain without change. Vans are quoted 5½ to 6. Tankerville Great Consols, ½ to ½; the agents report that better progress is being made, and the water is being got out from the bottom levels. The sampling of lead ore this week is about 230 tons.

Roman Gravel, 7½ to 8; the various points of operation are producing together about 60 tons of lead ore per fathom, showing that the mines continue to open out exceedingly well.

Leadhills, 2½ to 2½; satisfactory progress is being made in both the underground and surface operations, as well as at the lead smelting-works.

The Newport Abercrom Black Vein Steam Coal Company directors have called the general meeting of the shareholders for July 11, at which they recommend that a dividend should be declared of 7 per cent. on the ordinary shares, making with the interim dividend paid in January last 10 per cent. for the year, and on the Preference shares a dividend of 10 per cent. per annum less interim dividend paid.

At the Stock and Share Auction and Advance Company's sale on Thursday the prices, among others, obtained were—Investment Registry and Stock Exchange 5*l.*, A, Six per Cent. Preference (2*l.* paid), 35s.; Horse Shoes, 5s. 6d.; Improved Industrial Buildings, 111 per cent.; New Zealand Agricultural, 16; Confederate Bonds, 1½; Indian Consolidated Gold Company, 4s. to 4s. 6d.; Nine Rees Gold Mine, 5s. 3d.

The Souback and Catir Alan Mining Company on Monday received bill of lading of eight cases of ore.

On the Edinburgh Stock Exchange there has, writes Messrs. Thomas Miller and Sons, been a general improvement in railway stocks since last report. There has been a demand at considerably enhanced prices for the different issues of the Prairie Cattle shares. Arizonas have continued to fluctuate, the quotations ranging from 87s. 6d. to 89s. In oil shares the most active have been Burntisland and Midlothian. Since Wednesday last week Caledonian has gone from 104½ to 105½. Glasgow and South-Western from 113 to 113½. North British from 101½ to 103½. Edinburgh and Glasgow from 38 to 38½. Grand Trunk from 18½ to 19; the Third Preference from 42½ to 44½. Arizona Copper have fallen from 87s. 6d. to 82s. Marbella from 93s. to 93s. Tharsis from 140s. to 134s. Burntisland Oil from 20½ to 20½. In banks, British Linen has risen from 302 to 303. Clydesdale from 24 to 24½. Commercial from 5½ to 5½. In insurance, North British and Mercantile New have advanced from 95s. to 100s.; and Scottish Union, A, have declined from 63s. 6d. to 62s. Prairie Cattle shares have risen from 9½ to 11½; the Second issue from 9½ to 11½; and the Third issue from 9½ to 11½.

The Wassau and Ahanta Gold Mines Syndicate was inaccurately printed Wassau and Banta in last week's Journal. We have to thank the secretary for the correction.

We are requested to state that the directors of the North-Western of Uruguay Railway Company (late North-Western Railway of Monte Video) received today from their representative in Monte Video a telegram announcing that the extension of time for the completion of the line has been granted by the Uruguayan Government.

The London agents of the Oregon and California Railway Company have received the following telegram from Mr. H. H. Tyndale, the assistant-secretary of the company:—May, gross earnings, \$79,293; expenses, including \$3000 for rails, \$63,619; net profit, \$15,670.

Notice is given that the coupons of the Northern Central Railway Company's Consolidated General Mortgage Bonds due July 1 next, together with the 60 bonds drawn for the Sinking Fund, will be paid on and after that date, either in Baltimore or in London.

The Railway Share Trust Company give notice that the share certificates of the Palermo, Marasala, Trapani Railway (issue 40,000 shares) are now ready for delivery, in exchange for fully paid Scrip certificates, at their offices, Bank-buildings, E.C.

The Australian Joint Stock Bank notify that they will pay the coupons due July 1 of the Brisbane (Queensland) Town Hall Debentures.

Messrs. C. de Marrieta and Co., announce that by order of the Government of the Province of Santa Fé, all the outstanding bonds of the Seven per Cent. State Loan, 1874, for 300,000*l.*, will be paid off at par on and after July 2. They also notify that the dividends due July 1 on the same loan, and also on the Entre Rios Seven per Cent. State Loan, 1872, will be paid by them on and after July 2.

Pressure on our space at a late hour compels the postponement of many important matters—including report of Wheal Jane meeting on June 14, only supplied to us on June 22; report of Tamar Silver-Lead Company meeting, &c.—until next week.

ANDERTON TIN.—A good many transactions have taken place since the meeting at 1½ to 1½. A good number of present holders have shown their confidence in the early future of this mine by doubling their holdings.

ORGANOS GOLD.—A correspondent, whose letter will be found in its proper place in another column, sends information confirming that given in our last week's Journal, and commenting upon a "bear" circular sent out a few days since, and which has had the effect of temporarily bringing down the price of the shares. The correspondent, while giving information which will, no doubt, be useful to both shareholders and the public, appears to treat the circular referred to on the principle that "It is an ill wind that blows nobody good;" and if holders of shares would follow such advice they would, probably, have little cause for regret. Advices have just been received from the mine, and of the most satisfactory character. A general meeting of shareholders will be held early in the coming month. It is believed the report to be presented to the shareholders will be of a most gratifying character.

BRATSBURG.—The managers' monthly report will be found in another column, and is extremely satisfactory. Rich as the mines have been opening out for some time, several important improvements have lately taken place. The reserves have been estimated at considerably over 200,000*l.*, and must have increased and be still increasing. They have been dressing about 1000 bags (or about 1000*l.* worth) of 20 per cent. copper ore a week, and two cargoes are expected to be shipped this month. It must not be forgotten that all this is being done with the old machinery, but when the erection of the new and powerful plant is completed in the coming autumn, the returns will be much larger. The whole capital of the company is only 60,000*l.*, which is a most important consideration.

TRESAVEAN.—The report in another column shows that a very important point has been found rich. The mine is drained to the 100 fm. level below adit, or 160 fathoms from surface. It is also reported that the levels are in good condition, thus fully bearing out the previously-expressed opinions of all who have reported on the mine. The ground throughout Tresavean is firm—the shaft is in almost solid granite. These facts are undoubtedly of great importance in the opening of the mine, which has been previously worked. The report also states "some promising lodes are standing intact." The extent of the ground now open throughout, which it is said the whole of the tin, and scores of thousands of pounds worth of copper stand, is immense, the sett being about a mile in length. Caddy's and Gooch's lode stand throughout this length from surface, so that

there are 160 fathoms of backs; not a small mine, even if it were intended to drain no deeper, but it is understood that the drainage of the mine to the bottom will be carried on vigorously.

EAST WHEAL ROSE.—The plunger pole at the 40 is about complete and very shortly the mine will be drained to the 70 or 80 fm. level, soon to be followed by its being dry to the bottom. Another parcel of lead has just been sampled from the fine courses of ore above the 40 level; these are improving in value with depth. When the bottom of the mine is reached it is said such returns as have never previously been known from home mining will be forthcoming, for it is reported the lode is worth nearly 20 tons of silver-lead per fathom.

WEST CARADON MINE.—The most important improvement that has occurred since the present company commenced operations has just taken place in the 38 on Gilpin's lode. The lode at this point was supposed by the former company to have been destroyed by coming in contact with Vercor's lode. The agent of the present company, however, was always of opinion that such was not the case, and that the lode would be found to the north of the level. A short time ago a cross-cut was put out north, and the lode met with according to Capt. Richards' anticipations. During the past week the lode has improved to 2 tons ore per fathom, and it is showing the most favourable features for further improvement, particularly in the bottom of the level.

EAST POOL, AND BOGUS SHARES.—The committee of East Pool have effectually prevented the fraudulent creation of shares escaping immediate detection. On the back of the statement of accounts and announcement of dividend they have printed a complete list of shareholders with the number of shares held by each. If this practice were made compulsory every purchaser of a mine share would know that unless he received such a list with his dividend there was some underhand work going on.

COAL MINING IN IRELAND.—The editor of *Iron*, who from the title-page thereof appears to be Mr. PERRY F. NURSEY, C.E., has obligingly forwarded us, to be quoted from his journal of June 22, our own paragraph, published in the *Mining Journal* of June 9, on page 670, and states that his information is derived from "a daily contemporary." That an editor should sleep occasionally is excusable—Nurses, like other people, require sleep—but to send out for quotation as a brilliant novelty a paragraph a fortnight stale, and of the very source of which he is ignorant, is scarcely justifiable.

## C. PASS AND SON, BRISTOL,

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50 Callao Bis, 14s. 9d.	100 Mona Consols.	50 Tresavean, 12s.
100 Cootacovill, ¾.	50 Mounts Bay, 7s.	40 Tankerville, 4s. 6d.
125 Colombian Gold, 6s.	30 N. W. Caradon, 6s. 6	15 Tolima A.
100 Chontales, 4s. 6d.	75 Nouveau Monde, 8s. 3	20 do., B.
100 Devon Friend, 4s. 6d	50 Old Shepherds, 11s. 9	100 Victoria (Gold).
25 East Blue Hills, 7s.	20 Organos, 35s.	200 West Devon Con., 4s 6
50 East Craven Moor.	100 Parys Copper, 3s.	100 West Crebhor, 7s. 6d.
50 East Rose, 13s. 6d.	50 Potosi, 14s. 9d.	50 Wheal Crebhor, £2 15s
100 Eberhardt, 8s.	100 Prince Wales, 6s. 6d.	
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WORTH KNOWING.—Buy Nouveau Monde, Chontales, Organos, Fort Phillip, and Wheal Crebhor shares for a quick rise, and shareholders and clients are requested to apply for bona fide information to the above. BANKERS: CENTRAL BANK OF LONDON (LIMITED.)

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## Notices to Correspondents

**PNEUMATIC ORE DRESSING.**—“K. O. L.” (Adelaide).—The pneumatic system of dressing is but little practised in this country, yet would be quite applicable in the districts you mention where water is unobtainable. The wind would likewise furnish all the power necessary. In Brittany they have successfully separated galena from ochreous ore with air where water entirely failed. The proportion of lead was never over 7 per cent., and the screens used were of 4 min., 5 min., and 10 min. over the other; through these the air reaches the rectangular box, at the extremity of which a hopper distributes regularly the dried and pulverised materials which it is desired to classify. The worthless portions being the lightest are easily driven off by the blast, while the leaden particles being heaviest are carried to the bottom.

**WHITE-ON-BLUE COPIES OF TRACINGS.**—“Dialler” (Cambridge).—Practically the process is too unwieldy if the tracing exceeds 3 ft. by 2 ft., but the apparatus is cheap, and the manipulation simple. First, fasten three thicknesses of white flannel smoothly on a flat board so that there is a 2 in. margin all round the tracing, and get a plate of good quality double thick window glass the same size as the board. Secondly, make a water-tight wooden box, 5 in. deep, and so that the tracing can lie at the bottom with 6 in. margin all round. No other apparatus is needed. The process is a photographic one, and requires cleanliness. In a stone or yellow glass bottle dissolve—citrate of iron and ammonia, ½ oz.; red prussiate of potash, ¼ oz.; distilled water, 2 ozs. A chemist will supply you with this solution for 4d. or 6d. Well shaken, they will dissolve and be ready for use in ten minutes. Lay the sheet of paper on which the copy is to be taken on a smooth table or board (not your flannel board), and having put some of the solution in a dinner plate, give the paper a good even coating of it with a soft brush like that used for copying letters. Tack the paper against a wall or board in a dark place to dry, which will take an hour; when quite dry lay it, sensitised side up, on the flannel board; then the tracing face up upon it, and put the sheet of glass on the tracing, taking care that the tracing and sensitised paper are both quite smooth and in close contact. Now expose the glass to the best light you can get. In the mid-day sun five to ten minutes will do the printing; in shade or cloudy weather two to three hours may be necessary. Experience will soon enable the time to be guessed at. After exposure lay the print in the box, and thoroughly wash it with clean cold water, and in five minutes the copy of the tracing will be seen in bright white lines on a fine blue ground. After washing, hang the copy against a wall to dry. A dozen copies can be taken from one tracing, the latter not being at all injured.

**PROSPECTURES AND CIRCULARS.**—“J. P.” (Darwen).—We have no personal knowledge of the mines mentioned, never having seen them, and we never recommend the purchase or sale of shares. All statements published are on the authority of correspondents acquainted with the matters on which they write, and they alone are responsible for the accuracy.

**TELEGRAMS.**—“L.” (Clapton).—There can be no question that in the event of a telegram from England being addressed to the officer of an English company in charge of its mines abroad, the deputy or successor or any other officer having control would be quite justified, the person to whom the telegram is addressed being absent. In opening such telegram, it would be improper to assume that it related to other than the business of the company. A telegram from an individual officer, and not intended to be opened as mentioned, should be addressed thus:—“Capt. Miner, personal, Aurum Gold Mines, Timbuctoo,” or elsewhere, as the case may be.

**LISTS OF MINING COMPANIES.**—“W. J. J.” (Gateshead-on-Tyne).—Lists of the lead, copper, sulphur, and iron mining companies are given in Mr. Hunt's Official Mineral Statistics, published by Congress at 2s. The new volume for the present year will be issued from the Home Office as an ordinary Blue-book. You had better wait for it; last year's volume is old. The German would probably be found in the Berlin Official Zeitschrift für Berg-, Hütten-, und Salinenwesen. We do not know any list of the French.

**TREVITHICK'S ENGINE.**—Will some correspondent be good enough to let me know who were the publishers of some photographs of Trevithick's high-pressure steam engine, and their price.—I. H. J.

**Received.**—“B.” (Walbrook). Inserted.—“J. L.” (Ayr). The Journal is always posted by first mail; if you do not receive it on Saturday evening complain at the Post Office.—“J. L.” (New Barnet). If you have found the office closed, you should write to the secretary, stating when you will call; perhaps the amount allowed for office expenses will not allow him to keep a clerk or office-boy.—“Trade” and “Investor”. In all cases of a correspondent using a pseudonym we insert the place and date of the post-mark. This is a most effectual method of causing correspondents to send nothing but what they are prepared to substantiate, and takes some of the responsibility from us.—“W. A.”—“W. T.”

## THE MINING JOURNAL,

### Railway and Commercial Gazette.

LONDON, JUNE 23, 1883.

## THE CHANNEL TUNNEL.

Every additional line of evidence taken increases the certainty that, whether as a commercial speculation or for utility, the Channel Tunnel must inevitably prove a most lamentable failure. Before the joint Parliamentary Committee, on Tuesday, Sir Jacob Behrens, of Bradford, gave evidence in favour of the tunnel; but he was also in favour of making it one of the conditions of constructing the tunnel that the rates for woollen goods should be very low. It would not be much advantage unless the rates were kept down. He anticipated a large increase of traffic between this country and the Continent as the result of constructing the tunnel. Col. Majendie stated that he agreed substantially with the report of the scientific committee on the construction of the tunnel. Means could be found for destroying and obstructing it; but however perfect the means of obstruction there would remain an element of risk and uncertainty as to the operation of such means at the desired moment. He conceived that the tunnel could be so destroyed that it would be cheaper to make a new one than to repair it. By multiplying the means of destruction, the risk of their failure would be minimised, but not removed. In experiments in firing mines failures sometimes occurred unexpectedly. There would be no difficulty, however, in obstructing the tunnel, and he had no anxiety on that point—there were so many ways in which it could be done. The most effectual way would be to let water in from the sea. Everything would depend upon the defences and means of obstruction being in a high state of efficiency, so as to put in operation at the right time.

As to Col. Majendie's views that the tunnel could be destroyed with great facility they are doubtless satisfactory to the country, but should suffice to deter capitalists from supporting the scheme, since it can scarcely be supposed that any Government would be insane enough to sanction the construction of a work which jeopardises the safety of the State without inserting the proviso that in the event of the military authorities considering the destruction of the tunnel necessary the tunnel shareholders shall have no claim for compensation, nor right to question the judgment of the military authorities in ordering the destruction, or in determining the method of destruction to be used. The mere prospect of 5,000,000l. or 10,000,000l. worth of property being annihilated by a few days military operations will not be without influence with cautious capitalists, and these are really the only class that are deserving of consideration.

But perhaps the most conclusive evidence against the scheme is that of Lord Garnet Wolseley, given on Thursday. His lordship considered it was to the interest of soldiers to advocate the construction of the tunnel, as it would necessitate the increase of the army; but, as an Englishman, he was opposed to it, and thought he could count on his fingers the military men who were in favour of the tunnel, and they were men who had no experience in war. Nor did he fail to support his views by sound argumentative statements. He said that he still concurred in the recommendations of the former committee, and believed that, although these recommendations were the best that could be made under the circumstances, they would still leave open a considerable source of national danger if the tunnel were made. Dover was not a first-class fortress; indeed, it was rather a third-class fortress; and it differed from such a first-class fortress as Antwerp, for instance, in having a considerable sea front, which would make it necessary to provide for its defence against an attack by ironclads from the sea. Except two mounted guns, he did not think there were any guns at Dover that were capable of piercing ironclads. It would require a considerable addition to our army, and in the strength of the garrison at Dover, to make it a first-class fortress, like Metz, Antwerp, or Strasburg. He did not believe there were more than 1500 men in garrison at Dover, which would not accommodate more than 3000 men, whereas the normal strength on a peace footing of a first-class fortress ranged from 7000 to 10,000 or 12,000, or even 14,000 men. If the Channel Tunnel were made, with a good garrison of 10,000 or 12,000 men he thought a surprise at Dover would be very improbable in the event of war; but as to a surprise in time of peace, his contention was that within the course of a week, or even a day, it would be quite pos-

sible for any adventurous spirit to take possession of Dover with 2000 or 3000 men. If a small force were landed at Dover in the dark of night nobody might know of it till they knocked at the door of the fort and asked for admission.

It is said that an ounce of experience is worth a pound of theory, and Lord Wolseley showed that all military experience was adverse to the tunnel from the jeopardy in which it would place the country. Referring to the possibility of a small garrison at Dover being surprised, he remarked that the ease with which such a surprise might be made was best illustrated by the seizure of the Suez Canal, when the troops were landed at Ismailia, before anyone in Cairo knew that the troops were going up the canal. The first intimation of the event in Cairo was that the English troops had landed and were in possession of Ismailia. The surprise in that case was effected by having the telegraph wires cut at certain places, so that all communications were stopped. As to the means for destroying the tunnel, there was always a disinclination on the part of the governors of a nation to destroy great public works; and if efficient means of destruction were provided, they might not be used in time. Arabi Pasha was urged by his military adviser to blow up the Suez Canal, and had he done so at the time he was advised to do it, the war might have been going on at this moment; but Arabi hesitated to do it till the day before the landing of our troops at Ismailia, and then, of course, it could not be done. It would be possible to send troops through the tunnel to take possession of the works at Dover; but it would be better done by landing troops at Dover Harbour. At present the English and French are firmly united in friendship, and long may this friendship continue; but in the event of war each would undoubtedly do the best they could for themselves, and as to the risks of a sudden attack, he said it was known at the War Office that in 1840 an order was sent by the Prime Minister of France to destroy the British fleet in the Mediterranean. That order was delayed by an accident, but had it arrived in time our fleet was then so miserably provided that it must have been destroyed.

One very absurd argument put forth by the advocates of the tunnel is that “if the tunnel will create a danger for England it must create an equal danger for France.” This is not a fact; the cases are entirely different. Lord Wolseley stated, in reply to a question, that he thought an invasion of England by the army of France was a possible operation now, and would continue to be so till our country is put in a proper state of defence. In reference to the numerical strength of our army, he admitted that if all our men were called out we would have men with muskets—he should not call them soldiers—to the number of half a million. He thought it would be impossible for this country ever to raise its head again as an independent Power if the Channel Tunnel were in possession of a foreign Power. And he almost ridiculed the idea of our invading France, remarking that he thought to attempt such an invasion would be the act of a madman with our present small force. The alternative then seems to be the prohibition of the tunnel or the introduction into Great Britain of that system of universal and compulsory military service which causes such interminable misery and annoyance on the Continent.

The Channel Tunnel Committee will, it is expected, finish taking evidence this week, and will then adjourn for a few days preparatory to the consideration of their report. Whatever view the committee may adopt it is now recognised that it will be too late to proceed this year with the Channel Tunnel Bills now before Parliament. Too much care cannot be taken to guard the community against future claims for destruction of the tunnel should the making of it be sanctioned.

### THE PREVENTION OF ACCIDENTS IN MINES.—ESSAYS BY WORKING MINERS FOR PRIZES.

The prevention of accidents in mines has been much written about, yet the death-rate from “falls” in particular has not diminished. Since the passing of the Mines Regulation Act in 1872 it appears that 9976 deaths have occurred in collieries; of these 244 per cent. were due to explosions, and 40 per cent. from “falls,” to which, therefore, the greatest attention should be paid, especially as many of the deaths were through the sufferers' carelessness. The prevention of explosions having received more attention than the prevention of falls, PEASE'S West Collieries Institute in the North of England have just offered three prizes for “practical suggestions from coal miners for guarding against the accidents still usually met with in our mines.” About eight years ago the late Mr. HERMON, M.P. for Preston, offered two prizes for the best essays on the prevention of accidents in collieries. A number of working miners entered into competition, but the prizes were gained by mining engineers, who wrote elaborate scientific treatises on gases and explosions. The adjudicators, singular to say, were two barristers, Mr. STAVELEY HILL and Mr. THOMAS HUGHES, whose ability to decide upon so practical a matter was questioned. Now, however, as regards the PEASE'S prizes, the adjudicators will be practical men, and the competitors working miners, so that valuable suggestions are anticipated. But much will, of course, depend upon the miner himself for securing his own safety.

As a rule, the miner regards coal-getting as his only remunerative employment, as timbering brings him no money return for his labour, hence he neglects the latter unless danger becomes very apparent, and even when aware of this if timber be not at hand in his stall he will not go in search of props. In the North of England the “deputy system” is successfully carried out, men being appointed to see that the roof of the working places and main roads are properly supported. In all cases, however, sufficient timber should be provided in the miner's stall and within his reach. Many accidents occur in the main roads, owing to loose stone resting on the timber or being supported only by the adjacent shale. In roads where persons are constantly passing and repassing the roof requires particular examination. Main roads, again, should have no overlapping stone left unsupported.

Much also depends upon the discretionary work of the miner, and concerning this the practical suggestions of working miners will be of real value, and in their interest a large competition for the prizes is invited, the committee announcing that the necessary information can be obtained from Mr. GUY, Pease's Collieries, near Darlington. It is, therefore, hoped that many workmen will enter the lists, for the important problem involved is one in which they are most interested. The result of the competition and the suggestions contained in the winning essays will, of course, be fully reported.

### LEAD ORE BETWEEN BEDS.

It appears that in some localities lead ore occurs not in veins but in “flots,” a term which appears to relate to the mineral being found between beds of strata. The word flots is sometimes used, but according to Mr. DAKYNS, M.A., of the Geological Survey, the term is used when the flots or bedding planes in connection with which the ore is found inclines at a high angle. In the North of England, near Greenhow Hill, the ordinary lead-bearing veins are generally east and west veins, with barren north and south cross veins; good ore, however, is often found at the intersections. The east and west veins are sometimes cut off or shifted by cross veins. At Grimworth Moor, near to the ore, such veins are found composed of carboniferous limestone rocks, the lead ores not being in flots or lying between beds. But these do not run to any great distance along a bedding plane like a coal seam, and only bear lead where a spar vein intersects it. Flots in connection with courses of dun limestone have also been met with, and in the Bishopdale and elsewhere the ore has been developed only at the intersection of other veins and cross courses. These dun courses, where there are flots, are considered to indicate lead. These latter bear a similar relation to the flots as the cross veins, the difference being that a cross vein is a comparatively narrow crack in which ore is found at the flots planes. Where a dun course crosses a flots plane the metal is often found between the dun course and the white limestone. These peculiarities are of somewhat rare occurrence here, but have been found in some parts of Europe. In the lead and zinc ore districts of Raibl Carinthia the metalliferous limestone and dolomite of the district occurs below the Raibl shales.

The mineral deposits are evidently formed after the rock and ore of secondary origin; the deposits are frequently coeval with concentric layers of different ores. The latter have apparently been introduced into cavities and fissures dissolved out of the limestone, elimination of the calcareous matter, and infiltration of the metallic minerals perhaps going on together. They are intimately connected with the faults and joints. These peculiarities may have been met with in many districts but not recorded, although a notice of them could not fail to be interesting to both metallurgists and geologists.

### THE SULPHUR TRADE, AND ITS PROSPECTS.

It appears that the failure of the process for recovering sulphur from alkali waste with which Mr. Chance's name is connected is not so complete as its opponents could wish, and that the “total abandonment of the process” is merely the magnified report of the fact that at Mr. Chance's works the experimental plant has been temporarily laid out of use in order to replace it by the permanent plant which is to be used in future. In a long communication to the Glasgow Herald Mr. Chance remarks that the fact that the information given by him from time to time may have been used for speculative purposes is a source of extreme annoyance to him, but that he has the consolation of knowing that all he has stated is strictly true, or that he has erred on the right side. He refers to a paper which he read at Liverpool on April 18 on the “Present Position and Prospects of the Schaffner and Helbig Sulphur Recovery Process,” and adds:—“Mr. Newall, of the Washington Chemical Works, county Durham, in describing the plant now being erected by him for working this process, described it as ‘a process which I feel sure will do much to put the old Leblanc process, of which we are all so proud, on an equal footing with the newer ammonia process, of which we are all so afraid;’ and he concluded by affirming that, in their exceptionally favourable locality for working this process, he expected to recover his sulphur at a price ‘less than 1d. per unit.’” Dr. Hewitt, of the Radcliffe Chemical Works, near Manchester, commenced by stating that “I think Mr. Chance has put forward rather the dark than the fair side of the prospects of this process.” Mr. James Maclear, the technical partner in the firm of Messrs. C. Tennant and Co., of St. Rollox, who is regarded not only in England but throughout the Continent of Europe as a high authority on such subjects, concluded his remarks by stating that “I have only to say that I have had every opportunity of investigating the results obtained at Messrs. Chance's works, and am quite satisfied, basing my opinion on perfectly independent figures, that the cost should not be much more than 3d. per unit; and in the case of works such as ours, where cost of limestone being high makes the mud of more value, I should not be surprised to see it reduced to 2d. per unit.” Mr. Edmund K. Muspratt, of Liverpool, who presided, and whose experience is second to none, in summing up the discussion, remarked:—“My own opinion is that on the whole he (Mr. Chance) has erred on the right side, and that his estimate of the cost of the sulphur, as the equivalent of 3d. per unit in pyrites, is reasonable.” These utterances from men of vast experience and of the highest ability, expressed only after they themselves had thoroughly sifted the process in operation on a large scale at these works, sufficiently dispose of the allegation that “in the words of those well qualified to express an opinion the sulphur recovery process is most completely a commercial failure.”

Mr. Chance not unnaturally asks by whom the process has been wholly abandoned, and replies:—“Not by Mr. Newall, who is busily engaged in building his plant. Not by us, who have simply suspended our operations for two very simple reasons.—1. The plant devised and constructed by us at much cost—purely for the purpose of solving on a manufacturing scale the question (upon which we somewhat hazily embarked) of the value of this process—was never intended by us to be used permanently. It has taught us all that we built it for, and the experience thus gained will be invaluable to all who may eventually adopt the process.—2. Before we commence to erect new plant close to our vat waste and close to our alkali process, and before many other intending licensees commence their plant, we one and all naturally desire to know what course the Tharsis Company and their allies intend to pursue as regards the price of pyrites after 1884. For it is in the power of the pyrites importers, by a reduction in the price of their sulphur value, to counteract the advantages of this sulphur recovery process, and thus to prevent its adoption. The decision of the pyrites companies can not long be delayed, and pending their decision prudence naturally causes alkali makers to pause before entering upon the large capital outlay which the adoption of the Schaffner and Helbig process will entail.

### THE METAL OF THE FUTURE.

If it be assumed that the metals which we are at present accustomed to regard as essential to the comfort and convenience of everyday life are to be superseded the determination of what is or is not to be the metal of the future must doubtless depend upon so many circumstances—the discovery of new processes, new fuel and the like—that it would be dangerous to hazard an opinion upon the subject; but with regard to some inventions it is frequently very easy to arrive at the conclusion that they are not destined to revolutionise existing notions or interfere with the commercial value of metals at present in the market. At a recent meeting of the Franklin Institute the Secretary read an interesting report, in which he remarks that for the past month or two the technical papers have been full of accounts of a new process for manufacturing the metal aluminium and by which it is affirmed in very positive terms that the price has been reduced from 1000l. to 100l. per ton, or to about 1s. per pound; and he then proceeds to criticise the process, prefacing his criticism by an admirable little account of aluminium generally. He explains that aluminium, the metallic basis of clay, is even more widely disseminated over the surface of the earth than iron. It is one of the constituents of the minerals, felspar and mica, of which the granites and gneisses are largely made up, and of the clays which result from the disintegration of these rocks. It exists in considerable quantities, also, in nearly all the so-called crystalline rocks, and the silicates of alumina in various combinations form the most numerous class of minerals.

Abundant as are the ores of this metal it is one of the most difficult to reduce. Shortly after the discovery, near the beginning of this century, by Sir Humphry Davy, that the so-called earths, soda, potash, lime, alumina, &c., were metallic oxides, and not simple bodies, as had hitherto been supposed, and his demonstration of the fact by isolating the metals sodium and potassium with the aid of the then newly-discovered galvanic battery, repeated attempts were made also to isolate aluminium, the metal of clay, but unsuccessfully, until at length, after many failures, the efforts of Wöhler were crowned with success in the year 1817. The properties of the new metal were found to be so remarkable that the attention of chemists was at once attracted to the subject of its production; but the metal obstinately resisted all efforts to produce it in quantity until the year 1854, when St. Claire Deville solved the problem measurably, by reducing the metal from anhydrous chloride by reduction with metallic sodium. It was thought then that the successful solution of the problem of producing aluminium on the commercial scale would speedily bring about a revolution in the metallurgical world. But though nearly 30 years have elapsed since that time aluminium is still, by reason of its high price, ranked among the more precious metals, and is consequently debarred from competition with copper, zinc, tin, iron, and steel for the numerous industrial uses for which it is well adapted, by reason of its many admirable and unique qualities.

The metal aluminium has a grayish white colour, between that of zinc and tin; it is exceedingly light, being only two and a-half times heavier than water—that is, about three and a-half times lighter than copper, four times lighter than silver, and nearly eight times lighter than gold. It is remarkably sonorous, giving out a very clear musical tone when struck; it is very unchangeable in the atmosphere, surpassing in this respect most of the baser metals—iron, copper, &c.—and resembling the precious metals silver and gold. It is very difficultly oxidisable, nitric acid (aqua fortis), which attacks and de-



stroys nearly all the metals with the greatest energy, having little or no action upon it, and even the white heat of the furnace only suffices to oxidise it superficially. It has a tensile strength equal to that of copper, and conducts electricity nearly four times better than iron. It forms alloys with many of the metals, many of which have remarkable qualities. Of these alloys, those with copper—the so-called aluminium bronzes—are the most notable, being possessed of such valuable properties that their extensive adoption in the arts is only hindered by the one circumstance of their comparatively high cost. It will be apparent, then, that a wide field would be at once opened for it in almost every department of industry if once the problem of its cheap production were solved. Aluminium at 1s. a pound would indeed "effect important changes in the metal trade, not only in England but throughout the world"; but Mr. Webster's process is not calculated to assist to bring about that change.

The Webster process embraces two principal elements—the preparation of an anhydrous chloride of aluminium and of a double chloride of aluminium and sodium by a very tedious and roundabout method, and from this chloride the metal is subsequently obtained by the use of sodium as a reducing agent. The invention was mentioned as a remarkable discovery in English scientific society by men who ought to have known better, and it appeared to occur to no one to subject the extravagant claims of the alleged improvement to the test of intelligent criticism, yet the statements were such that it is not surprising that the secretary of the Franklin Institute says that he was more than astonished that claims so grossly and palpably erroneous and exaggerated should have been permitted to pass unchallenged in the country where they originated, and which boasts of so many eminent authorities in metallurgy. The alleged new process is almost a literal copy of the old time-honored, introduced and practised in France for the past 20 years. In the only important feature the production of an anhydrous chloride, and the reduction of this by means of sodium, it is absolutely the same. The only features that can be called new relate to the method of treating the raw material some convenient and cheap aluminous substance, and after reading Mr. Webster's patent specification, the secretary is well satisfied that those portions of the process that are new are the only portions that are worthless. He urges, moreover, that when an inventor publishes his invention with such extravagance of statement he must expect the most searching investigation of his claims. The utter absurdity of Mr. Webster's claim to be able to produce aluminium at a cost of 100l. per ton, which would be equal to about 1s. per lb., will appear from the simple statement that to reduce 1 lb. of the metal from the chloride requires, theoretically, very nearly 3 lbs. of metallic sodium, and in practice nearer 4 lbs. than 3, and the cost of the sodium alone required for the reduction of 1 lb. of metal will be 4s., if not more, to say nothing of the tedious and costly preparation of the chloride. Aluminium, he is satisfied, is the coming metal, destined one day to play as prominent a part in the arts of civilisation, perhaps, as iron, but after raising our expectations to so exalted a pitch, Mr. Webster's much advertised solution of the problem of producing it cheaply forcibly recalls to memory, by the similarity of its descent from the sublime to the ridiculous, the old quotation—*Parturiunt montes, nascetur ridiculus mus.*

#### SCOTCH PIG-IRON WARRANT MARKET.

Mr. W. WILSON (Glasgow, June 21) writes:—The improvement reported in the beginning of last week has not been maintained, but a large business continues to be done, chiefly on trade account. Outside operators are cautious, and will keep aloof until unmistakable evidence is forthcoming of a sustained improvement in the demand. From certain iron centres rather better reports come in, but quietness continues to be the prevailing feature of the trade. Shipments are fairly good again, although not comparing favourably on the week. A furnace has been put out at Glegarnock, which reduces the number blowing in Scotland to 114. 2951 tons were put into store here last week, and 600 taken out at Middlesbrough. Business was done during the past week at the following prompt cash prices:

Thursday, June 14.	Friday, June 15.	Monday, June 18.
47/1, 47/2, 47/1	47/1, 46/10/4, 46/11/4	46/11/4, 46/10, 46/1
Tuesday, June 19.	Wednesday, June 20.	Thursday, June 21.
46/11, 47/1, 46/11/4	47/1, 46/11	46/11, 47/1, 46/11/4, 47/1
	1833.	1881.
Price of Scotch Warrants on June 18	46/11	48/1
Furnaces in blast in Scotland do.	114	108
Shipments of Scotch pig-iron for 1 week ending June 16	13,255	15,303
Do. since beginning of year	297,126	289,555
Iron in store at this date	583,381	637,440
Price of Middlesbrough, No. 3, June 18	39/	43/4/4
Furnaces in blast Middlesbrough dist.	119	119
Middlesbrough Iron Imported at Grangemouth, week ending June 16	5,280	2,250
Do. since beginning of year	127,532	104,572

**NEW TERRAS MINE.**—During the past fortnight this mine has been inspected by several eminent mine agents, sent by various shareholders who wished to satisfy themselves as to the correctness of the reported value of this property. Capt. Williams wrote his employers a most satisfactory report, stating that the mine is far richer than he expected to find it, and then follows a detailed statement. Capt. W. Rich, of South Condurrow and other mines, states in his report that the sett is of great extent, and has a length of over a mile on the run of the lodes, and is situated to the south and to the west of the granite formation. There are large elvan dykes traversing the clay-slate in this district. The principal elvan in the New Terras seems to have a general bearing of north and south, and has been worked on formerly to some extent by open workings from surface. This large elvan, which in places is 40 ft. wide, has been broken down and stamped pell mell for tin, and I am told some 7000l. worth of tin ore has been sold from these workings. It appears, however, there is a large lode running to the south of east and north of west that strikes this elvan on the east side. At and near the point of contact the lode has yielded some rich tinstone. A winze has been sunk on this lode below the shallow adit some 7 fms. on a lode which is 12 to 15 ft. wide, and from the samples I took away with me I find it yields 3/4 cwt. of tin to the ton, or a produce of 2 1/2 per cent. This is above the average yield of our deep mines in Cornwall, and as it is very near the surface in the New Terras Mine it should be worked at a good profit, provided it extends away eastwards from the elvan, and there is every reason to believe it will when it is opened. The lode after it came in contact with the elvan at the point spoken of seems to have taken a northerly direction with it, and carries tin in the head of the cutting going north.

**SMELTING IRON WITH PETROLEUM.**—The idea of utilising petroleum as a fuel for metallurgical purposes has again come into notice on the other side of the Atlantic. Some interesting experiments have been carried on for some time past in works erected at Montreal by Dr. Duryee, of New York, who claims that he has demonstrated that with crude petroleum as fuel iron can be manufactured with practical success. The Montreal furnace takes 2 tons per hour of ores, giving at the lower end a perfect slag, and showing the reduction to be complete, as the ores are six hours in the reducing gas. The petroleum is blown into the furnace, in the form of spray, by a current of air. It is ignited by the fire in the furnace, and the intense heat which results is utilised in reducing the ores. The weight of the furnace is about 100 tons, its length being 120 ft. and its inclination 5 ft. It is said to be capable of reducing about 4 tons of ore per hour. The Canadian Iron and Steel Company of Canada have commenced the practical smelting of iron by this process. In their furnace it has been found that the ores are six hours in the reducing cylinder, one hour in the fusing or puddling pot, or seven hours in all, giving ample time for reduction and subsequent melting out of cinder, giving a fine quality of iron which was weldable, of strong, fibrous structure, and as it came from the hammer was made into different forms on the blacksmith's anvil. The blooms came down continuously at the rate of a ton an hour, and were taken from the furnace direct to the hammer.

#### REPORT FROM CORNWALL.

June 21.—There still seems no good prospect of a definite change for the better in mining business generally, but it surely cannot be much longer delayed; and there is some consolation in the fact that if delayed under present conditions it will be all the more substantial when it comes. So we still live in hope. There is ample confidence indeed in the future, as the ready way in which calls are met testifies, and the desire expressed on all hands locally to keep matters on a sound financial basis.

There are two things in connection with the Dolcoath business that we cannot at all understand. One of these is the idea which seems to possess Mr. Rule and a few of his friends that the management of Dolcoath can be held criminally responsible for what has happened, for on the same theory it would not be very difficult to catch Mr. Rule as an adventurer himself in the same net, and convict him also of neglecting not sifting every detail in the Cost-book. The other is the amount of sympathy—mostly indeed anonymous—that has been and is being shown for Mayne. The committee of Dolcoath are charged, forsooth, with acting unjustly towards him, because they decline to make public certain matters that may tend to defeat the ends of the prosecution and the purposes of justice! How sensible business men can talk or write such nonsense is almost beyond belief. Nothing is in any way in question connected with the fact of Mayne's guilt or innocence. The points in the minds of the committee and the prosecution are points of a technical kind—legal not moral—and they do not feel inclined to assist Mayne or Mayne's advisers to shuffle out of the just consequences of any crime that may be brought home to him, by taking advantage of mere technicalities or side issues in the manner attempted before the magistrates. Strange ideas, indeed, appear to rule with some people. Mayne is to be helped to escape the consequences of confessed crime. The committee—themselves amongst the heaviest losers by the fraud committed—are to be punished in addition for another man's offence. Because they did not catch him they are to be caught. However, no doubt by-and-by wiser counsels will prevail. Blame, of course, there is, but it is not blame of this character.

Special attention is deserved by the long list of nominal mining companies published in last week's Journal. We say nominal, but of course in such a long list it is hardly likely that all can be in that predicament. We know only too well how many mining companies have been floated with no prospect—and in some cases with no intention—of success, and particularly what use has been of the Limited Liability Acts. Still we confess we were not quite prepared to find over 100 mines in one group called upon to justify their existence by making the needful returns, or by being proved to be in operation. A great contemporary has remarked that 19-20ths of the whole of these mines were "of a class which would never be touched by the great body of Cornish mine adventurers;" and, whether this be precisely the case or not, certain it is that it would have been far better for the interests of mining generally, as well as for the pockets of the adventurers individually, if they had never been started. About a fifth of the whole are connected with Devon. It is very curious and instructive to note the run on certain variations of well-known names.

In one view it is to be regretted that the adventurers in Tincroft did not see their way clear to effect a new lease on the basis of the terms proposed by Lord Robartes. Captain Teague's sliding-scale proposal is, undoubtedly, far better than the method now customary; but if ever the wants of Cornish mining are to be fully met, and the position of lords and adventurers put upon a stable basis, it must be by taking the profits into account. Nor can we see any objection to a fixed low rent in addition, though it would be better to call it rent than dues. The lord of a mine is entitled, as we have always contended, to a fixed rent for land occupied and surface drainage. Beyond that all is speculative, and his returns should be speculative as well as those of the adventurers. It seems as though an excellent opportunity of establishing this principle had been missed, but we are none the less certain of its final adoption.

#### REPORT FROM DERBYSHIRE AND YORKSHIRE.

June 21.—There has not been much change of late as regards mining operations in Derbyshire, and trade taken altogether has not been so good as it was a few weeks ago. Lead mining goes on much as usual, the men working steadily, and the average output maintained. It is, however, different as regards the coal mines, for the men working in them are on short time. The demand for house coal has fallen off considerably, more especially for the London market, whilst prices have gone down as well. This has affected several of the largest collieries, including those at Clay Cross, Eckington, Grassmoor, Staveley, and Pinxton, all of which sell direct to consumers. The reduction which has taken place in the price places the colliery owners in a most unpleasant position, for they are now getting considerably less for their coal than they did before they gave the miners a 10 per cent. advance. The question now is how long is this state of things to continue. Many of the masters say that, so far from realising any profit, they are actually losing money, and this cannot last much longer. The men who were agitating for working only five days a week have obtained what they were demanding almost by force as the result of the state of trade, and some, indeed, more than they required, for not a few are now working but four days a week. Steam coal has gone off rather better of late, but the demand is by no means equal to the production; and were it not for the large quantities required for the smelting of iron owners would be placed in an awkward fix. As before stated, there is no port within a moderate distance of the bulk of the collieries to which it can be sent by railway for shipment. It is in consequence of this that the mine owners are looking forward with a good deal of interest to the result of the Hull and Lincoln Railway Bill now before a Committee of the House of Commons. It is undoubtedly the Bill of the session as far as regards railways, and the fight will be one of the most costly that has taken place for some years. In the event of its passing—which to say the least is doubtful—there would not be much difficulty in getting a Bill to make a railway from some near point on the new lines to the heart of the Derbyshire coal fields, and so give a more direct route from Lincolnshire to the Metropolis, via the Midland. The steam coal would then find an outlet at Hull for shipment, and so compete with that sent from the West Riding. In other descriptions of fuel there has not been much change.

The iron trade of Derbyshire and the adjoining county is not so active, although there has been no diminution in the output, but the demand has become less brisk for several places, but there has been no diminution as regards the quantity used at the local works. The removal of the steelworks at Dronfield to the place at Workington erected by Cammell and Co. (Limited) is giving that once prosperous place quite a deserted appearance. A large number of houses are empty, and during the past week many families have gone away together to the vicinity of the new works. The consequence is that house property is almost unsaleable at any price, so that those who wish to purchase houses of their own can do so at a small outlay, the taxes being the most important consideration, for the few will have to bear a heavy burden at which the many did not bear without a good deal of grumbling.

In Sheffield trade continues good taken altogether, more particularly in the heavy branches, the two leading companies being particularly active in armour-plates, and for these it would appear orders continue to be sent in from various Governments, including that of Brazil. With the activity prevailing in the various ship-building yards, there is still a good demand for ordinary plates, and also for most qualities of rolled iron. The Bessemer rail trade is by no means brisk, but there is a large output of the raw material, in the shape of ingots of special qualities for certain descriptions of cutlery and tools. Crucible steel is in steady demand, and there is a fair trade being done in castings of it for axles, wheels, and mining tools. The cutlery houses have had nothing to complain of, and a good deal of work is being turned out on American account. The strike of the filemakers has terminated, the men agreeing to accept the

10 per cent. reduction, and as the stocks were pretty nearly exhausted during the struggle, there will be plenty to do for some time to come in edged tools. A steady business has been the rule, and there has been an increased production of light agricultural implements and garden tools. The foundries have been working better of late in both heavy and light castings, whilst the engine-works are more fully employed.

The Coal Trade of the West Riding is tolerably good for the time of year; but, as usual, short time is the rule, owing to the falling off in the demand for house coal. Steam coal is now going off well, there being a large tonnage forwarded to Hull, Grimsby, and Goole for shipment to the North of Europe, France, and several of the home ports.

#### REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

June 21.—The large supplies of coal which are now available from the Cannock Chase district consequent upon the season decline in the demand for best house sorts tend to keep down the prices of manufacturing coal at a point lower than the slightly increased demand, for mill and forge sorts would otherwise just now warrant, hence this week while reporting rather better sales masters are unable to point to any improvement in prices. Good forge coal is priced at 7s. 6d. to 7s. per ton at the pits, and inferior sorts at 6s. 6d., while a mixture of small coal and slack can be obtained from the Chase at somewhat under 5s. per ton. This week samples of coke made by one of the new economical processes for retaining the hitherto waste products are being introduced to some of the ironmasters in South Staffordshire, and by them the quality of the new article is to be tested. The best state of things noticeable a week ago in the iron trade continues, and prices of foreign pigs especially are stronger. Some agents ask a further advance of 1s. 3d. per ton upon last week. Common native pigs are, however, unimproved at 40s. to 37s. 6d. The sheet trade shows most improvement in the manufactured branch, and last week's advance of 5s. per ton is upheld.

The Mines Drainage Commissioners are now working at a loss of 8000l. a year. This transpired on Friday last, during a meeting in Wolverhampton of arbitrators and commissioners to hear appeals against a draft mines drainage award for the Tipton district. There were an unusual number of appellants, for the proposed rate was the maximum allowed by Parliamentary powers, 9d. a ton on coal and slack and ironstone, and 3d. on fire-clay and limestone. The legal arbitrator—Mr. G. M. Dowdeswell, Q.C., said that the Commissioners must have money, or the whole district would be drowned out. The Commissioners now looked to the mineowners to accept the necessarily heavy rate in order that the expenses of the Commission might be met. The decisions in all cases of appeal were reserved.

The North Staffordshire colliers have addressed a request to their masters that they would receive a deputation to discuss a settlement of the present dispute. The application has been replied to by Mr. Frederick Wragge, Chairman of the Coalmasters' Association, who states that during the long period he had been connected with the iron trade of North Staffordshire he has always been in favour of meetings between employers and workmen whenever any difference or dispute has arisen; but that he is bound to say in the present instance he is not of opinion that a conference would be of any use. The ironmasters, Mr. Wragge contends, have always acted with perfect justice, fairness, and consideration towards the workmen. This reply has occasioned disappointment amongst the men, and they have resolved to continue the strike. Some of the men are being gradually drafted into other districts. A deputation to North Wales has been appointed to ascertain and report upon the desirability of sending men to the district, an offer of places for 200 men having been received from there.

Messrs. Thomas and Bettridge (in conjunction with Messrs. Holbeche and Sons) offered for sale by auction, at the Great Western Hotel, on Thursday, a small residential estate of 300 acres, known as Haselour Hall Estate, situated in Staffordshire, between Alrewas, Tamworth, Lichfield, and Burton. The estate consists of an ancient half-timbered hall, standing in a park of 34 acres of rich feeding turf, with manorial rights, good shooting, and about one mile of river fishing, and within 10 minutes' walk of Haselour railway station. The hall is said to possess great historical and archaeological attractions, being one of the oldest residences in the county, and it has recently been artistically restored. There was a large number of persons at the sale, and the bidding, which commenced at 10,000l., reached 24,000l., at which sum the property was withdrawn.

#### TRADE OF THE TYNE AND WEAR.

June 20.—The Steam Coal Trade north of the Tyne continues very good. There is a good demand for all kinds of steam coal, including small and bunker coals. The demand for gas coal is very quiet here at present; it is of course the dull season for this description. The demand for coke in Durham for inland consumption, and for shipment continues good; the demand for house coal is also good. The Harton Coal Company have long been famous for this class, which is got from the Binsham seam; they have now introduced their Cleadon Wallsend, worked from the Boldon Colliery, and it promises to be of good quality. The use of the electric light in and about mines and collieries is likely to be much extended shortly; it has been tested now at some places, and it is found to be admirably adapted for lighting the surface works, engine-houses and screens, &c.; it has also been fairly tried in the underground works in the engine-houses, stables, &c., near the shaft; in all those situations the light is found to be vastly superior to the old system of oil lamps, and also much superior to gas lighting. At the extensive Hetton Collieries the light has been introduced to some extent at the surface works, and it is highly approved of so far. Whether this light will be ultimately extended into the internal workings of collieries to take the place of safety-lamps is, of course, as yet an open question. There are, no doubt, yet serious difficulties to be encountered, but these obstacles may be overcome in time; that the light will be advanced along the main roads and up to the main landing places, where only fixed lights are required there can be no doubt. When this is accomplished it only remains to perfect a small portable lamp which can be carried by hewers and all other workmen into the bords, airways, &c. A lamp of this kind has already been made by Mr. Swan, but it appears that it does not yet fulfil the conditions required. It is to be hoped, however, that ultimately this difficult task will be accomplished; the attention of electricians and scientific mining engineers has been directed to this object for a considerable period, and it is acknowledged that all the safety-lamps at present in use are only comparatively safe.

The Bill brought in by Mr. Burt for the purpose of amending the Owners' Liability for Accidents Bill met with little support in the House of Commons. The opposition of Mr. Pease, who moved an amendment, proved fatal to it, as the amendment was carried by a large majority. The object of Mr. Burt's Bill was to make the Act in future compulsory in its application. The proposed Bill has received a considerable amount of support amongst the Durham miners; but in Northumberland it has met with some opposition from the same class, and, generally speaking, we are inclined to the opinion that the working classes in this district prefer to have the power of contracting themselves out of the provisions of the Act. It must also be recollected that the miners in this district have the advantage of the Permanent Relief Fund, and the colliery owners have rendered very substantial support to the fund, which they could scarcely be expected to continue if the Act alluded to were made entirely compulsory. If this had occurred we do not for a moment suppose that all the colliery owners in this district would have withdrawn their support from the Miners' Permanent Relief Fund; but we hold that it is quite impossible to overrate the importance of this fund, and as at present the best relations exist between the colliery owners and the miners in this district any measure which would endanger these relations would be very undesirable.

The Iron Trade has continued dull during the past week. The firmness shown a few days ago has not been kept up. There is, however, a very favourable feature in the trade—that is, the continued large shipments, which are considerably in excess of the shipments for the corresponding period in May, and a very large total is ex-



pected at the end of the month, and also a large reduction of stocks. It is, however, rather probable that at the next meeting of the ironmasters, which will be held shortly, it may be determined to put some furnaces out. There is no better feeling in the manufactured iron trade, and prices are declining to some extent. Ship-plates can now be bought for 67.; common bars, 57. 16s.; boiler-plates, 71.; puddled bars, 57. 12s. 6d. The steel rail trade continues dull. The shipments of pig-iron for the week ending on Friday last were 22,751 tons, and 3579 tons of manufactured iron and steel. The shipments for the first half of the month are 50,000 tons—a very large delivery. The pig-iron market is quiet, at a little over 39s. for No. 3. Coals and coke at Middlesbrough are steady, at late rates. The make of plates in the district is being reduced. The plate-mills at Darlington, Bishop Auckland, and one at Witton Park have been closed. These inland mills cannot compete with the river-side works, owing to the heavy charges for railway carriage.

At the Consett Iron Company new steelworks were opened and tested on Wednesday last, the result being extremely gratifying. The scheme was first projected three years ago, and the company have expended a considerable sum of money in carrying out this new undertaking. The new buildings are situated on the south-west side of the extension ironworks, and stand close to the Consett branch of the North-Eastern Railway, being fitted up with all the necessary railways, sidings, &c. The works consist of extensive underground flues and ducts, and a building of enormous size, which comprises four large "bays" of roofing. A separate bay is provided for each of the three furnaces, the fourth containing a ponderous hammer, which is a wonderful piece of machinery. The whole of the erections have been constructed upon the most improved principles, thus making the works the most complete, compact, and best arranged works in England. The necessary machinery and plant embrace all the latest improvements and inventions, and are specially adapted for the manufacture of steel by the Siemens-Martin process. On this day the first furnace was tapped by Master W. Jenkins, the son of the manager. The operation proved highly successful, the liquor running from the furnaces forming steel ingots of the best and finest quality. Mr. Jenkins, general manager, and the whole of the officials of the company were in attendance. It is expected that the works will be in full operation in a fortnight's time, the company intending to roll every description of steel plates, &c. About 50 men will be employed in the works at the outset, but ultimately a large number of hands will be employed. The works are constructed with a view to a large extension in future. The Consett Iron Company are now in a position to compete with any similar concern in the county. In anticipation of the extension of these works this company have erected 100 additional workmen's houses lately.

#### REPORT FROM NORTH WALES, SALOP, AND CARDIGAN.

June 21.—Good reports come from the group of lead mines in North Cardigan, known as the Ergloedd United and the Cefn Gwriog.

In Denbighshire a fatal accident has occurred at a colliery belonging to the New British Iron Company by a fall of the roof. Another fatal accident occurred at the Cefn Freestone Quarries in the same neighbourhood through the fall of a stack of stone, which buried a steam crane and its driver. A prosecution instituted by the Government Inspector against the manager of the Sandycroft Colliery last week failed, the magistrates giving the defendant the benefit of a doubt.

The works of the Mersey Tunnel are proceeding rapidly and the first link of railways connecting it with the Cheshire side of the river is also inaugurated.

#### TRADE IN SOUTH WALES.

June 21.—The same activity which has characterised the Steam Coal Trade during the whole of the present year still continues, and the only drawbacks at the present time are the want of increased facilities for shipment at Cardiff, and the lessened output caused by some trumpety disputes at the mines about the right of choosing a doctor. Mr. W. T. Lewis, the manager of the docks, is doing his best to deal fairly with all parties by breaking down the monopoly of the larger shippers, who "nurse the tips," so that the smaller men cannot load their vessels. Second and third rate qualities of coal now sell freely at from 10s. 9d. to 11s. per ton. The amount sent away from Cardiff last week was 128,893 tons foreign, and 18,813 coastwise; Newport, 25,500 tons foreign, and 22,787 coastwise; Swansea, 23,032 tons foreign, and 6455 coastwise.

The Iron and Steel Trades of the district are moderately well employed, but there is little profit made in consequence of the keen competition of continental makers. A parcel of 350 tons has been sent away from Cardiff, while from Newport 2360 tons have been sent to Calcutta, 1100 tons to New York, 500 tons to Montreal, and 335 tons to Sundswall. Iron ore is in slack demand, and prices remain low. Cardiff has received 7671 tons from Bilbao, and 772 tons from other places; Newport, 7379 tons from Bilbao, and 2300 tons from other places.

The Tin-Plate Trade shows some signs of improvement. In consequence of the near approach of July 1, when the new American tariff comes into operation, orders are being given so as to time the arrival of tin-plates at New York, when the benefit of the reduction will be obtained. Good coke-mades are fetching from 16s. to 16s. 6d. per box, while charcoal-mades realise from 19s. to 20s.

#### WEARDALE LEAD COMPANY.

This company, which has taken over the rich mines so long held by the Beaumont family, has been constituted with a capital of 200,000l., in 50,000 shares of 4l. each. The lead mines and smelting works are held from the Ecclesiastical Commissioners, and situate in Wardale and the adjoining district, and comprise an area of nearly 85 square miles. The mines have been worked for about 300 years, and have returned large sums in profits, the output for the 21 years ending 1880 having been upwards of 8000 tons per annum. They are believed to be the richest of their kind in England. The ores are said to contain upwards of 8 ozs. of silver per ton. Out of the 85 square miles a small area only has been developed, and notwithstanding that the mines have been profitably worked for many generations they are still pronounced by competent authorities to be but in their infancy. Mr. Stewart, the mineral agent of the Duke of Buccleuch, in his report says—"Nevertheless, whatever work has been done may be compared to a few patches of reclaimed ground on a vast waste; and what metal has been obtained, to samples taken from the bulk to test the quantity and quality of what remains, the present returns form no index of the ultimate product of this gigantic concern; and energetic and skilfully directed work, under the auspices of all modern improvements should place the undertaking in a state as highly productive of ore as ever it has been at any other period of its history."

Capt. John Trelease thus concludes his able report:—"The district is renowned for its mineral treasures, and will make large returns of ore in its present state of development. The crushing mills are unique, with Green's patent apparatus for classification. These mines are well supplied with machinery, smelting-works, offices, and stores; it is useless on my part to begin to enumerate the cost of the same. Free drainages generally prevail in most of the mines, which are worked by the most inexpensive method known in mining—by adit levels. Other gentlemen, of greater mining ability than myself, will report to you of the great extent of mining territory you have on the Rookhope side; there is no denying the fact that it is the best lead property in Great Britain, and that with practical management it can be very inexpensively worked, with grand prospects of success in the near future."

From the present returns large dividends are expected, and as ample funds are provided for development on capital account, it would be strange if there are not discoveries made in the course of a few months that will realise the most sanguine expectations. Such outlay will not interfere with the revenue account in the working of the mines. The called-up capital (50,000l.) is a small

amount on which to pay dividends. An important feature is that the Ecclesiastical Commissioners charge nothing for the mines. The payment to them of 25,000l. for plant, stores, &c., is represented by a large field of machinery on the various mines, and can be looked upon as a nominal consideration.

### Original Correspondence.

#### ORGANOS GOLD MINES.

SIR,—I have perused with pleasure the short article on this mine contained in last week's Journal, and the letter by "A Satisfied Shareholder" in the previous number. The deductions made upon the telegrams recently received appear to me to be nothing more than fair—indeed, the remarks upon the subject might have been much stronger without in any way being over sanguine. The success of the Organos Mines, however, cannot be expected to give complete satisfaction to everyone, as if the condition of the market is to be believed in there must be "bears" of the shares, parties who cannot believe that there may be any exception to the long list of disappointing gold mining companies floated during the past three years. A rise in the price of the shares must necessarily affect the pockets of such people, and they are ready to take what in some cases may be called unfair measures for keeping down prices—the sending out of circulars which, if not deliberately incorrect, at least imply that which is untrue, is one of these. Such a circular respecting the Organos Mines has recently reached me, and anything more malicious, for it is evidently personal, it has not often been my lot to see.

Among other things it is stated that the officials at the mine are silent as regards recent crushings; but I have been to the office and seen the telegram, and find it runs thus:—"Green," the manager, "answers permanent crushing commenced, partial clean up 60 ozs.: total sold 90 ozs. Mill producing about 40 ozs. weekly." Hence, this telegram, received from a private source, simply repeats a statement by the manager, Mr. Green (who, by-the-way, would be at the mine about 300 miles from the nearest telegraph office, and could not telegraph himself), and it may consequently be regarded as authentic and entirely reliable.

If we contrast the result now being obtained—40 ozs. weekly, or 160 ozs. per month, with the returns promised in the prospectus, they must appear highly satisfactory. I hear the prospectus promised 900 ozs. of gold per month from a crushing of 50 tons of quartz daily—say, 1000 tons monthly. But I hear that only a portion of the stamps are yet at work, and that the stamping capacity of these is only 140 tons per month. Hence, proportionally to the amount of quartz crushed the present returns of 160 ozs. per month far exceeds the promises contained in the prospectus, and establish the fact that with ordinary good management and a sufficiency of machinery the company must become a great and profitable concern. I understand the remaining stamps will soon be at work, and these, as stated in your article of last week, should enable the company to make a handsome profit. There has been considerable delay in getting the stamps to work, but delay seems inseparable from the erection of all mining machinery. Now, however, that the mine is making returns, it is well to remember that, according to the manager's statement of a few months ago, there is gold quartz already laid bare to the value of over 25,000l.; a fair amount, in view of the capital being only 15,000l.

Some remarks are made respecting the capital, which is said to be exhausted, but if the mines are now profitable it does not appear to me that this is a matter of serious consequence. And under any circumstances, I am informed, the directors do not propose pressing further the issue of debentures. Should the mine prove as profitable as it appears certain will be the case, it will become desirable, no doubt, to erect a large number—say, 100 heads of stamps—and some arrangement may have to be made for capital to do this. But this must be looking far ahead—a matter to be considered a year hence—as the present stamps appear to be sufficient of themselves to enable the company to make large and profitable returns, and to pay a handsome dividend upon its capital.

As was pointed out in last week's Journal, a great point in favour of this company is the smallness of the capital and the cheapness of working. When it is stated that 100 heads of stamps, or even possibly double that number, and, indeed, all the machinery on the mine, can be worked by water-power, and that there are something like 1600 ft. of backs above the level of the mill and the river which drives it, those who understand mining will appreciate the immense advantages enjoyed by this company's mines.

In conclusion, I would state that while naturally indignant that "bears" or anyone else should attempt to wreck the property in which I am interested, I am still obliged to them for what they have done. I have been enabled to increase my holding in the mine cheaply, while having the satisfaction of knowing that the lowered price has to some extent had the effect of weeding out the weak holders, who simply by their absence must help to strengthen the company.—London, June 21.

A. S.

#### NEW CICAPRA AND MERCEDES GOLD MINING COMPANY.

SIR,—My attention has been called to last week's Journal, in which, under the heading "Notices to Correspondents"—Cicpra—is the following:—"You no doubt refer to the New Cicpra, which is a distinct concern; a meeting was recently held, and a resolution to wind-up may have been passed." I shall be glad if you will state, if the New Cicpra and Mercedes Company be that referred to, that no such resolution has been passed in regard to this company and no meeting of shareholders has been held.

Moorgate-street Chambers, June 21.

S. J. SMITHERS, Sec.

[For remainder of Original Correspondence see this day's Supplement.]

THE TRANSVAAL AND BECHUANALAND.—The second edition of Dr. G. B. Clark's pamphlet has just been issued through Messrs. Juta, Heelis, and Co., of St. Bride's Avenue, and will be read with interest by all really desirous of learning both sides of the question with regard to the Transvaal. The conclusion that most readers will arrive at is that disturbances in South Africa are at present only in their infancy, and that mistakes have been made which it will be exceedingly difficult to remedy by amicable arrangements. The state of affairs indicated by the pamphlet is anything but encouraging to those who have capital invested in South African enterprise, and more especially so to those who, having property there, are seeking British capital to develop it. It is very truly said that the present condition of the territory has been brought about by inter-tribal war, and the attempt of different chiefs to attain the paramount chieftainship of the tribes and the intrigues of white speculators and adventurers. Unfortunately these white speculators and adventurers are both Boers and Anglo-Saxons, and others opposed to the Boers, and to the entire class veracity and integrity are altogether unknown. It will be long before South Africa will make itself attractive to the capitalists of this country.

METEOROLOGICAL SOCIETY.—At the closing meeting of the session on Wednesday, at the Institution of Civil Engineers, Mr. J. K. Laughton, M.A., F.R.A.S., President, in the chair, the papers read were: 1.—"On the Structure of Ice Clouds disposed in threads, proposed to be called Cirro-filum," by the Rev. W. Clement Ley, M.A. Of the cirro-filum cloud, one of the most important to the weather forecaster, is that to which the author has given the name Cirro-filum. Having from the time he was 12 years of age carefully studied this cloud whenever visible, and having for the last 25 years made it the subject of minute study, he is enabled to bring forward some results which may prove of value. The author then gives first, a short account of the mode in which he was led to prosecute this study; secondly, a classification of the more recent and reliable observations; and lastly, an explanation of the principal phenomena observed. 2.—"Notes on a Second Series of Experiments on the Distribution of Pressure upon Flat Surfaces Perpendicularly Exposed to the Wind," by Richard H. Cartis. The results obtained in these experiments

agree very closely with those of the former experiments. 3.—"On the Reduction of Wind Records," by the Hon. Ralph Abercromby. The author discusses the significance and best method of deducing from anemographic records—the total quantity, the quantity from different points of the compass, the relative frequency, the mean and annual velocity, the mean velocity from different quarters, the resultant, and the mean and diurnal direction of the wind. 4.—"The Spectroscope as an Aid to Forecasting Weather," by F. W. Cory, M.R.C.S. 5.—"Note on River Temperatures as compared with Air Temperatures at Greenwich and Bremen," by Robert H. Scott, M.A., F.R.S. The author compares the results given in a recent paper by Sir G. B. Airy, on a comparison between the records of the temperature of the Thames and those of air temperature taken at Greenwich, with those published by Herr von Freeden for the temperature of the Weser as compared with that of the air at Elsfleth, close to Bremen, for the 10 years, 1858–67.

ENGINEERING AND METAL TRADES EXHIBITION.—The opening has been definitely fixed for July 5 and promises to be a great success. Mr. S. Barnett, jun., who so ably promoted the Naval Exhibition last year, is working out the present movement with the same energy and prospect of success. On Thursday evening, at the Hotel Continental, the nature of the forthcoming Exhibition was explained. It is stated that there will be over 400 exhibitors from London and the leading provincial towns. The exhibits will include articles relating to mining, casting and forging, marine engineering, railway and tramway work, workmen's models, scientific models, and drawings by civil engineers. Hydraulics and military engineering will also constitute a feature in the Exhibition, and the show of machine tools will be one of the finest ever seen in this country. Leeds is to be largely represented, and amongst those firms that send contributions are the following:—The Leeds Forge Company, Kirkstall Forge Company, John Fowler and Co., Whitley Partners, Greenwood and Batley, Ackroyd and Best, W. H. Baxter and Co., Armistead, Verity, and Co., Hepton and Co., and James Fraser. One of the most remarkable exhibits has been sent in by Messrs. J. Whitworth and Co., of Manchester—a hollow propeller shaft, 55 ft. in length, 18½ in. in diameter, the size of the hole being 10 in. The advantage of this shaft is that it is thoroughly forged, elastic, and is very reliable when subjected to sudden strains.

SPANISH QUICKSILVER.—The mining exhibits at the Madrid Exhibition now open demonstrate that the industry is making great progress in Spain, and with reference to the Almaden quicksilver mines the Comercio says:—"Owing to misfortunes consequent upon our political discord these mines are to a certain extent in the hands of a powerful foreign house, which collects the produce, sells it in London—monopolising that trade—and receives besides 150,000l. annually by virtue of the contract arranged with the Spanish Government in 1870."

CHESTERFIELD AND DERBYSHIRE INSTITUTE OF MINING, CIVIL AND MECHANICAL ENGINEERS.—At the annual general meeting at Nottingham, on June 14 (Mr. John Jackson, of Clay Cross, in the chair), the report of the Council showed that the number of members on March 26 was 281. The cost of printing transactions and stationery had been unprecedentedly large, amounting to 321l. 8s. 9d., being greater than the previous year by about 55 per cent. The quantity of matter published exceeded that in an ordinary volume by about the same percentage, and the occasion of the excess was the issue of the Coal Dust Committee's contribution. The deficiency of subscriptions to repay the cost of the experiments had been made good by the Institute by payment of 167l. 16s. 9d.; and the bank balance had been reduced to 98l. 10s. 8d. A number of additions to the library and museum had been made, including a number of blue books and pamphlets presented by Lord Edward Cavendish, M.P.—The Chairman moved the adoption of the report, and the proposition was seconded by Mr. Oliver (Chesterfield), and carried unanimously.—The election of officers for the ensuing year resulted as follows:—President, Lord Edward Cavendish, M.P.; vice-presidents, Mr. A. Barnes, M.P., and Messrs. C. Binns, E. Bromley, A. Carrington, J. P. Jackson (Swanwick), H. A. Allport, and R. F. Martin; councillors, T. D. Croudace, E. Eastwood, W. D. Holford, G. Howe, J. Humble, W. Oliver, W. Wilde, H. Lewis, G. Lewis, and A. W. Barnes; treasurer, Mr. E. Bromley; and secretary, Mr. W. F. Howard.—The Chairman announced that several papers would be open for discussion, the first one being by Mr. Sydney F. Walker. This dealt chiefly with the electric light and the transmission of power by electricity, dynamo-electro machines, accumulators, and the use of electricity in mines. After a discussion another paper, by Mr. T. G. Lees, on "A self-acting arrangement for unloading and loading colliery cages, Fisher's Patent."—The Chairman characterised the apparatus as very good and simple.

SELF-ACTING LUBRICATORS.—An improved apparatus so constructed as to be applied to steam ports or inlets, the lubrication being effected by means of the condensation of the steam in the chamber or receiver containing the lubricant, has been invented by Messrs. DUBALL and DELETTREZ, of Levallois-Perret, Seine; it is composed of a chamber fixed to the engine cylinder in any convenient manner. The shell on the cock of the lubricator is screwed to the upper part of the receiver. The cock is turned so as to put the receiver into communication with the funnel of the lubricator by an orifice, that is to say, when the tap handle is turned upwards the receiver is in communication with the outer air by a conduit which permits the filling of the receiver with the lubricant. When the tap or cock is in a horizontal position the apparatus is in working order, and the lubrication is being effected because a hollowed part in the tap puts two conduits into communication, so that the steam entering through the steam conduit passes into the receiver through the other conduit and condenses in the receiver, causing the lubricant to flow in the reverse direction through the same conduits. The lubricator may be emptied instantaneously by putting the conduits into communication. In this case the tap handle is turned down when the steam enters one conduit and immediately forces out all the contents of the receiver. In another form of lubricator the receiver is fed in the same way by turning the tap handle upwards whilst another handle at the lower part is also turned upwards to shut off the entry of the steam. The receiver then fills itself. The lower part of the receiver is closed by the lower tap or cock, which establishes or intercepts communication with the steam entry. On the sides of the receiver are arranged gauge glasses fixed in metal boxes by soldering.

THE PATENTS BILL.—A deputation of patent-agents was received by Mr. Chamberlain on Thursday. The points urged were: That the head of the Patent Office should be a capable and accessible official; that, as the time of the law officers was at present so fully occupied as to impede seriously the progress of patent business brought before them, the duties proposed by the Bill to be assigned to them should be imposed upon the controlling authority of the Patent Office itself; that, as claims could often not be defined in a provisional specification, such absolute definition be, as at present, postponed to a later stage; that the question as to whether an application contains subject matter for a patent should not be a matter for the decision of the examiner; that power should be given to an applicant or patentee to amend his claims if they have been injudiciously framed; that the register of patents should be maintained in as full a form as at present; and, finally, a new clause was suggested to avoid the evil of letters patent granted to foreigners becoming invalid in consequence of the publication of their specifications prior to the grant of their British patents.

The West Pateley Bridge Lead Mines will hold a meeting on July 3, to consider to consider the creation of 20,000 10 per cent. preference shares of 2s. 6d. each, payable by instalments or otherwise. The 10 per cent. preference is receivable only out of profits, and in such years as 10 per cent. profit is earned.

SOUTH-EAST WYNAAD ESTATES AND GOLD MINING COMPANY.—The secretary informs us that Vice-Chancellor Bacon, on June 15, reversed his previous decision to have the company wound-up under the Court.



## FOREIGN MINES.

**ALMADA AND TIRITO CONSOLIDATED SILVER.**—J. H. Climes, May 21: Mina Grande, Hundred Lode, 100 ft. drift; the width of pay streak in north breast is 3 ft., average yield 9 tons per cubic fathom; 3 ft. have been driven during the week at \$11. There is an improvement in the winze in 100 ft. drift since our last advice. The bottom is now in 1 ft. of milling ore and producing about 3 tons per cubic fathom. The total sinking during the week was 27 ft. The pay streak in north breast of 40 ft. drift is 2 ft. wide. Our valuation of this 7 tons of milling ore per cubic fathom. Week's drifage equals 4 1/2 ft. at \$11. We have risen 9 ft. during the week in the rise in back of 40 ft. drift. This rise is in 3 ft. of good milling ore. We calculate its contents at 10 tons per cubic fathom. In No. 45 drift north 45 ft. were advanced, three days only being worked. This end is not quite as productive as when last reported; the present drift is in 1 ft. of good milling ore. Stopping back of No. 45 drift, pay chute 3 ft. wide. The present yield is about 11 tons per cubic fathom; the stopping during the week was 3 1/2 ft. The total length of ore ground opened on the Hundred Lode from No. 45 drift is 73 ft. The ground has been stopped away 18 ft. above this drift, but all beyond this height is virgin.—Tirito: Our returns of green ore are somewhat less. The chute which we have hitherto been following has considerably fallen off, and we do not think it will last more than two weeks longer. No. 2 chute which is hard over the northern side of the side, will, we calculate, live to a considerable height.—Tunnel End: We have been short of hands owing to the prevalence of sickness. We engaged a couple of foreigners during the week, but being raw hands the speed was slow, 7 1/2 ft. was the drifage for the three days worked; next week we hope to show better figures.

**BRATISBERG.**—J. Daw, A. W. Daw, Z. W. Daw, June 12: Since sending you our monthly report for May we are pleased to say an improvement has taken place in the Nos. 2 and 3 adits, the former being now worth 12 ft. and the latter 15 ft. per fathom. Both the above levels are now opening up splendid ground for stopping. The three stopes in the back of No. 2 are worth 13 ft. per fathom. In the bottom we have five stopes working, worth on an average 12 ft. per fathom each. The middle level between the two adits has also improved, being now worth 14 ft. per fathom. We have but one stoper working in the back of No. 2, value 12 ft. per fathom.—Murchison's: The lode in the 25 east is 6 ft. wide, and will yield 13 ft. worth of rich ore per fathom. The 25 west is also 6 ft. wide, being now worth 8 ft. per fathom; this winz is only temporary, as the end is not far off the workings east of York's shaft, where we have a very rich lode all along the bottom. The rise to the east of the shaft has been suspended, for the reason that several miners had to be taken to provide a full complement of men for the night dressing. The rise to the west is going up in a fine lode 3 ft. wide, worth 13 ft. per fathom. We have now eight stopes working in the back of this level, worth on an average 13 ft. per fathom each.—Johannes Mine: The end of the main level is being driven in a splendid lode fully 8 ft. wide, yielding 15 ft. worth of ore per fathom. We have three stopes working here, which will average 13 ft. worth of ore each per fathom.—Surface Operations: The dressing machinery has been going night and day since May 28, and dressed about 1000 bags a week of upwards of 20 per cent. ore. The dressed ore is being forwarded with all possible speed to the shipping port of Skien, and if all goes well with the chartering we shall get the first two cargoes shipped this month. We are progressing well with the erection of the houses over the water-wheels, and have prepared a large quantity of timber for the houses to be built over the buddies. The water-course is progressing rapidly towards completion. Everything is ready for the engines to commence the turbine and air-compressors. We expect they will arrive here to-morrow evening.

**BRAZILIAN GOLD.**—Manager, May 23: The gold produce from April 16 to May 14 was 4 lbs.

**CALIFORNIA GOLD.**—Alfred Rickard, May 19: The flats of the 1400 ft. level are now completed. Work will now be resumed on the drifts, and on the shaft, contracts for which have been set to a full set of miners. The lode in the main stopes of the 1300 ft. level west has diminished in width; it is now 2 1/2 ft. wide, yielding 6 tons of good grade milling ore per fathom. In some trial stopes started in the 30 ft. level west the ground laid open by the connection made with the Hidden Treasure at this level shows in places some small branches of pay, the testing of which forms the object of these trial stopes; at 450 ft. from the California shaft the first test is being made, and at 550 ft. the second. In the rise in the main stopes of the 1300 west the lode is about 2 ft. wide, yielding 5 tons of good grade milling ore per fathom; the ultimate result here obtained will be the extension of the stopes west of the junction of the south vein and main lode.

In the 1250 ft. level stopes east the ore body is holding out satisfactorily; the output is from 6 to 7 tons of milling ore and 1/2 ton of smelting ore per fathom, and all the mineral is of good grade. The rise in the 1100 ft. level west is up 23 ft.; lode smaller. In the stopes of the 1100 ft. level east the lode is 7 ft. wide, of which several branches will yield milling material of fair grade, and some smelting ore, together 7 1/2 tons per fathom; careful sorting is necessary in handling this ground, in order to obtain a satisfactory result.

Telegram, Mr. Rickard, June 21: Mill run 223 tons; yield \$3400 (\$801), smelting ore 223 tons 245 lbs.

**COLORADO UNITED.**—May 26: The 12th level, east of shaft, is at present showing about 3 in. of ore. Winze No. 2 between this level and the 12th has now been connected. The 12th level east is now showing but little mineral, although in the bottom of the drift there is about 1 1/2 in. of ore. No. 2 stoper is looking a trifle better, carrying some fair grade ore of about 4 in. No. 3 stoper has but little change, still carrying from 4 to 5 in. of good galena ore. The shaft is being kept open, as the pump which became disabled when we first cut the water will be repaired by Monday or Tuesday. The Coin lode, from the Brown cross-cut, is still looking well, carrying from 2 to 3 in. of good mineral. The east drift of the Jas. G. Blaine lode, is looking well, carrying from 2 to 3 in. of good mineral. There is no change in the west drift of this lode. The Onida Fenton is being driven on easterly and westerly, and is showing a little mineral of good quality. The mill has been running well every day during the week, having averaged 105 sacks of ore heading. The following sacks have been sent to the buyers during the week: 1034 sacks second-class, weighing 16 tons 1340 lbs.; 105 sacks zinc headings 5 tons 905 lbs.; total 409 sacks, weighing 22 tons 245 lbs.

**CORPORATION OF SOUTH AUSTRALIA.**—Captain Bryant: Bilman Mine: Massey's Shaft: The cross-cut east in the 70 has been extended from shaft 5 fms., at which point it reached the lode. The ground driven through has been a compact dolomitic limestone. Owing to its close texture and dampness only 2 ft. 5 ft. have been driven during the week. Opening on the lode we are making a leader of solid ore. On the north side of the cross-cut on the lode there is a leader of solid ore. When first cut it was small, but is now worth 2 tons of average percentage ore per fathom. The portion of the cross-cut for the width carried is of much the same character and value as the lode in the 60-3 tons 22 per cent. ore per cubic fathom. Small pockets of iron pyrites are being met with in the lode, which we do not reckon of much importance. As we advance towards the hanging-wall we expect the lode will further improve; next to six men to cut through the lode, at 26 ft. per fathom. The 60 fathom level south has been extended 1 ft. 3 in.; rest at 17 ft. 10 ft. per fathom. Although we are carrying a portion of the footwall it produces dressing work. The winze in the bottom of this level has been reset to two men for the month, at 16 ft. per fathom, worth 2 tons 22 per cent. ore per fathom. The 60 ft. level north is worth, for portions carried—5 ft. wide 3 tons of 22 per cent. ore per fathom; set to two men to strip down the side of level, 5 ft. 10 ft. per fathom for the month.—50 Fm. level South: As it is necessary that winze should be sunk in the bottom of this level to communicate with the 60 ft. level when sufficiently advanced; we have temporarily suspended the stoper in the bottom of the 45, and put the men to sink a winze at 16 ft. per fathom for the month; the portion of the lode carried is worth 1 1/2 ton of 21 per cent. ore per fathom. We have put two men to strip out the western side of the level to the footwall; lode worth for portion carried 3 tons of 21 per cent. ore per fathom; set at 5 ft. 10 ft. per cubic fathom. When this work is completed we shall lay the tramroad on the footwall, and commence stopping to the bottom of this level; we are at present doing a great amount of exploratory work, in order to open out the mine for a thorough system of taking away all the ground that will leave a profit on working. After the winze in the bottom of the 50 shall have been communicated with the 60 all the ground above the 50 will be available to take away by tribute, by which time our hauling and dressing appliances will be completed, pits cut at the 60 and 70, and other necessary work. We have commenced the erection of the winding-engine. The masons will have completed the loading about the middle of next week after which they will commence building the great water engine-house. The dressing machinery is in fair working order. Estimated quantity of ore dressed last month, 39 tons gross of 21 1/2 per cent. ore; quantity dispatched from the mine, 31 tons 1 cwt. gross.

**Mount Rose Mine:** Capt. Trugnot reports: The engine-shaft has been sunk during the month 1 ft. 2 in. in present depth 3 fms. 4 ft. 6 in. below the 23. There is no change in the character of the ground since last reported. The water is increasing a little as we go down, so that the pumps have to be kept at work nearly all the time with the present lift, which is now 164 ft. long. The 23 has been extended east of engine-shaft 1 ft. 3 in. 6 in. through disordered lodestuff, with small deposits of black ore, worth on an average 1/4 ton 30 per cent. ore per fathom; let to two men at 6 ft. per fathom. Stope in back of the 23 has yielded during the past month rather more than my last estimate—2 tons 40 per cent. ore per fathom. The lode is not regular, but makes in very rich bunches and poor places, between which on an average yield 2 tons 35 per cent. ore per fathom; let at 4 ft. 10 ft. per fathom to keep the rich ore separate from the poor as far as practical. This stope in bottom of the 13 has yielded during the month 10 tons of 40 per cent. ore. The best of the lode is dipping from the winze east; some poorer ground has to be worked away in getting after it, which on an average yields 1 1/2 ton 40 per cent. ore per fathom; let at 3 ft. 10 ft. per fathom. The trial shaft, west of engine-shaft, has been sunk to water level 10 fms. 6 in. deep. The ground being still unsettled work has been suspended for the present. We have dispatched by the teams this month about 24 tons black and grey ore from 35 to 40 per cent., and have broken and dressed about the same quantity, and we have still on hand 25 tons, including 10 tons of inferior ore, worth 20 to 25 per cent.

**HOOVER HILL.**—June 6: In the Gallimore at the 130 ft. streak in the winze is somewhat smaller. The Gallimore shaft is being sunk a few feet deeper before commencing a drift to the south-east. In the winze from the tunnel stoper progress is slow on account of the water. The ore in the bottom is poor. Good progress is being made in the drift west from the bottom of the Hawson's shaft, and it will doubtless reach the greater part of the Tunnel winze before long.—Mill: 237 tons of ore were crushed during May, yielding 119 tons of gold, or at the rate of 5 1/2 dwts. per ton.

—June 11: I have to-day shipped you through Messrs. Brown Brothers, and Co., one bar of gold, weight 115 25 ozs. The discrepancy of 3 75 ozs. between this weight and that reported in my letter of the 6th inst., as amount of May production (119 ozs.), is due to loss on remelting and fluxing.

**KOHINOOR AND DONALDSON CONSOLIDATED.**—Mr. Alfred Rickard, in his report for the week ending May 26, says respecting the Donaldson Mine:—The Nos. 1 and 2, the intermediate, and the No. 3 level stopes are on tribute at a remittance of 30 per cent. of net proceeds of output. The tributaries are working steadily, making an output of 1 1/2 ton smelting ore and 5 tons milling ore per day, all of fair grade. In the No. 4 level the improvement in grade of the mineral is maintained, and the lode is yielding fairly well. In the Champion Mine the pay streak in the 200 west stoper is 1 ft. wide, yielding 3 tons of low grade ore per square fathom. The 200 ft. level east is 131 ft. drifting from the bottom at this level the inclination is favourable for sinking good grade free milling ore in exploring the ground east of the old Discovery shaft. The 400

stope east is on tribute at a remittance of 25 per cent. of net proceeds of output. The two branches of mineral will yield 1 1/2 ton smelting ore and 2 tons milling ore per square fathom. The 420 winze east is down 10 ft., ore vein 1 ft. wide, quality improving. The 520 rise east is up 6 ft. The 520 level west is in 155 1/2 ft.; the ore vein is smaller and of less value, will yield 1 1/2 ton of smelting ore and 3 tons of milling ore per square fathom. The shaft is down 55 1/2 ft., and is progressing satisfactorily; it is in the portion of the lode lying between the hanging and footwall veins, consequently is putting out little mineral of value. The hanging-wall will gradually be gained so as to follow it more regularly in the next stages, for greater safety to the permanency of the shaft.

**LAKE SUPERIOR NATIVE COPPER.**—Capt. Williams, June 1: No. 3 shaft, on course of lode, has been sunk 5 ft. 8 in.; lode much the same as when last reported. No. 1 level south, on course of lode, has been advanced 13 ft. 1 in.; a little native copper. Here we are on the footwall of the lode, and, from the appearance of the ground, the best part is still in the hanging-wall, so I intend cross-cutting through the lode at this point. No. 1 level north, on course of lode, has been advanced 10 ft.; lode producing good native copper. We are getting near the lake in this level, so I have suspended it. We shall now cut through to the footwall of the lode, and then put a winze through to the No. 2 level, so as to open up the ground.

No. 2 level north, on course of lode, advanced 10 ft.; the lode at this point continues to produce very fine native copper. No. 2 level south, on course of lode, advanced 16 ft. 4 in.; no change since my last. No. 3 level north, on course of lode, advanced 32 ft. 3 in. Here the copper bearing part of the lode appears to be in the hanging-wall from the part at present driven on. To prove this I have to-day commenced a cross-cut. No. 3 level south, on course of lode, advanced 28 ft. 1 in. The lode at this point continues productive, but to prove width of lode and productiveness of hanging-wall part I have commenced cutting through the lode.

No. 3 shaft, on the course of the lode, is sunk below No. 1 level 5 ft. 8 in.; the lode at this point continues to yield very fine native copper, and occasionally small pieces of native silver; the lode has increased from 18 in. to 4 ft. 5 in., and continues to widen. We continue to make good progress at surface. The machinery from the south shore to erect our stamp mill arrived on Tuesday last, and as the timber and machinery is on the mine no time will be lost in getting it in. Our machinery continues to do good duty. The health of the establishment has very much improved, and I am pleased to say that although some of our men are leaving I have no difficulty in replacing them.

**NEW EMMA.**—George Cullins, May 31: Since my letter of May 21 shaft has been sunk 4 ft., making the depth now 169 ft. below Bay City Tunnel. Cross-cut now in 90 ft., having extended it 10 ft. since my letter of 21st. No change in rock; little increase in water.

On the 18th inst. the following cablegram was received from Mr. Cullins:—

"Indications good ore near."

**PESTARENA UNITED.**—W. Roberts, H. P. Climes, June 13: No. 5 Lode: The 30 end north is in a well-defined lode of quartz, yielding 5 tons of ore per fathom at 8 dwts. of gold per ton. The 55 end south continues in hard schist with a compact branch of pyrites on the eastern wall, yielding 3 tons per fathom at 1 oz. per ton. In the 65 end south the lode is much flatter, caused by the junction of decomposed courses of ground from the western side, and is also of a very broken character, and yields 4 tons per fathom at 8 dwts. per ton. In the 80 end north the lode is somewhat narrower, yielding 5 tons per fathom at 12 dwts. per ton. The 80 end south is in a mixed lode, gradually opening out and yielding 5 tons per fathom at 5 dwts. per ton. The lode in the 90 end north consists of a band of decomposed schist with a thick layer of quartz overlying and carries pyrites throughout both sections, producing 8 tons per fathom at 8 dwts. The 90 end south is in a large lode of chloritic schist interspersed with strings of quartz, and shows occasional spots of low grade pyrites.—No. 1 lode: In the level driving west from the 100 south we are still obtaining a little saving work from the northern branch; the southern part is at present unproductive, and the rock continues hard. The 80 end north is being carried in hard micaceous rock traversed by sterile strings of quartz; a good divisional line is still the only indication of a better grade; this we hope to be only temporary, and changes in yield are very frequent here. Surface operations progress favourably, and all the machinery is in good working condition.—Val Topa, H. J. Gifford: At No. 1 level on the new lode the country rock presents rather an unfavourable appearance, and the lode has become narrower, being now only about 9 in. wide. In the rise stope in back of drift over No. 1 level on new lode the ore is holding up and the lode seems pretty regular. In the north end it seemed to cut off against a head of rock, but this on being blasted into shows quartz above. The new lode at No. 1 level continues on a thick bed of quartz, which in many places shows rather rich veins of mineral. Along the eastern end the quartz is of a good height, but rather poorer. Altogether the stope yields about 15 tons of 10 dwts. ore per fathom. In the rise stope commenced in the back of No. 1 level over the rise from No. 2 appearances so far would not lead one to hope for much, as the ore has already diminished. Whether this is merely a pinching up of the lode or whether it means that the ore does not hold up will be seen when the lode is opened up in the bottom of the stope. The 100 north-west great quartz lode is opening up ground for stopping, being driven on a lode of about 2 metres wide of fair quality ore. The other stopes remain much the same as reported in the beginning of the month, each yielding a fair quantity of ore.

**PORCELLAN AND COLONIAL GOLD.**—Climes, May 5: Total quartz crushed for the month ending April 18, 2023 tons; total gold obtained 443 ozs. 15 dwts.; average per ton 4 dwts. 3 1/2 grs.; receipts (including 5514 fs. obtained from tributers) 11884 1/2 dwts.; payments (including 354 1/2 fs. paid for firework) 14842 3/4 dwts. Loss, 2957 1/2 dwts. Total loss to date, 6732 1/2 dwts. Amounts divided: The Port Phillip and the Climes Companies was 2454; the Port Phillip Company's proportion was 4554.

Telegram, Melbourne, June 15: Struck western, fair looking stone.

**RICHMOND CONSOLIDATED.**—Telegram, June 19: Week's run (one furnace), \$15,000, from 310 tons of ore; refinery, \$20,000.

S. Longley, May 28: The 100 south drift from station has been run 36 ft. Total 446 ft. The 100 north drift from station has been run 13 ft. Total 227 ft. In limestone. The 300 north-west drift from above has been run 25 ft. through limestone stained with iron. Commencing at a point 172 1/2 ft. in from south-east drift. The 1050 north-west drift from station has been extended 8 ft. Total 702 ft. In very hard limestone. The 1050 north-west drift from above has been run 26 ft. Total 70 ft. In limestone, following on fissure.

**BY AND DUNDERBERG CONSOLIDATED.**—Report for May 27: Dunderberg: There is no change in reports in any of the stopes being worked or tribute. There are 14 tributaries at work and have shipped 18 tons tribute ore this week. The drift from the upraise 50 ft. below the bottom workings of the old Home Ticket is in rather favourable ground for ore; progress this week, 8 ft.—Home Ticket: There is no change to report in the orebody at the bottom of the new shaft; it is looking equally as well as last week. The roads are now in good condition and regular shipments are being made daily. Have shipped 148 tons this week, and 15 tons at week end.

Telegram, June 19: 123 tons of ore shipped, 103 tons smelted, realising net \$2292; 11 tons tribute ore shipped, and 11 tons smelted, producing to company \$87.

**RIO GRANDE DO SUL (BRAZIL) GOLD.**—H. Eddy, May 5: Aurora: In the past month, after sinking the western shaft 3 ft. 2 in. to complete it, and taking down ground necessary for plat, &c., we have driven the 10 ft. level east 1 ft. 2 in. 3 in. in lode varying from 3 ft. to 5 ft. thick, composed principally of micaceous schist, but containing a little quartz, arsenical and iron pyrites, with traces of gold, but not sufficient to value. The 10 ft. level west has been driven 1 ft. 1 in. and rock mixed, causing variation in the size of the former, which is at present unproductive. The veins collectively would be altogether 2 ft. thick, and the composition much the same as the lode east, but unproductive. For the present the drifage of the western level will remain in abeyance, but the eastern level will be prosecuted with the object of reaching the junction of the cañter and Aurora lodes—this being our most productive point in the level above (No. 2 gallery), and was also productive from No. 2 to surface. The distance to drive to reach the junction at the 10 ft. level east (below No. 2) is 9 fms. No. 2 gallery west has been driven 5 ft.; lode variable, being at present 3 ft. wide, and containing about 8 per cent. of arsenical and iron pyrites, with traces of gold, but not sufficient to value. No. 2 north-east on cañter has been driven 3 1/2 ft.; lode 2 1/2 ft. wide, producing 5 1/2 dwts. of gold to the ton. We have also at this point been shooting down the side where any vein showed itself, so that nothing should escape untried, but the veins as a rule go under the lode, and are not sufficient to value. No. 2 north-west cross-cut on slide has been driven 1 ft. 1 in. 2 in. and is still in moderate ground, the small drifage being due to illness. The porphyritic granite in this level is favourable to the productiveness of the lodes (when met with) for gold. In No. 1 gallery west the drifage has been 1 ft. 1 ft. 6 in.; lode averaging 7 in. wide, and producing 5 dwts. of gold to the ton. The granite here is the same as in No. 2 north-west cross-cut, and on meeting with any cañter veins, there is no doubt the lode would improve.—Meza's Lode—New Gallery: The drifage has just been resumed; lode 1 ft. wide, having a large proportion of gossan, but containing comparatively little pyrites. The latter (at this level) having been decomposed. The lode contains a little gold, and the result of sampling will be duly forwarded next week. This gallery will now be pushed steadily forward to develop a junction with other veins from the side, these latter being as a rule of a productive character.—New Lode: We have just commenced sinking near where this lode meets the trap-rock to prove its value at this point, and expect the hanging-down where the lode is properly defined next week.—Serrito Mine: The hanging-down has gone small and unimportant, but the foot-wall leader has increased in size to 4 in. wide in the 3 ft. sunk, and quantity of quartz taken out in the three weeks being 50 lbs., containing visible gold estimated at 20 ozs. to the ton, and about 1 ton of 5 to 6 dwts. of gold to the ton. We have struck a feeder of water which prevents us sinking, but I shall bring in another gallery below the open cutting from a point 8 fms. distant, which can be done to advantage in six weeks; this will give us an increased depth of 10 ft., which I hope (subsequently) to obtain 10 tons of ore in a rise to pass through the Lavras reduction-works, and so give this point something of a fair average.—Reduction Works: Little done during the past week owing to the illness of the man who works the percussion frame (the others being inexperienced), but stamping, amalgamating, the working of the percussion-frame, &c., will go on regularly during the coming week, and in a fortnight more I shall clear up a parcel of gold to forward, giving you an exact account of the productiveness of the stuff.

**SANTA BARBARA GOLD.**—T. S. Treloar, May 17: The mineral treated at the spalling-floors during the month of April amounted to 1473 tons, of which 562 tons were rejected, and 916 tons stamped; 377 tons of the latter were raised from the mine, and the remaining 539 tons taken from the refuse heap at surface. 38 tons of amalgamation tailings were also retreated at the No. 4 stamping mill. The total produce obtained was 815 oitavas of gold, or 0.889 of an oitava per ton; worth 88 1/2 d. per oit. (3464 7/8 fs. 6 d.), and the estimated working cost for the month 2 1/2 d., being 144 s. 14 d., leaves an estimated excess of expenditure of 399 1/2 s. 6 d. on the mining working account during

April. In addition to the above mine working cost the sum of 3261 1/2 s. 10 d. was estimated as having been expended on capital account during April in respect of the construction of the new watercourse and hauling machinery. There is nothing calling for special remark on the general operations.

**SENTEIN.**—M. Scantlebury, June 17: No. 4 Level: The several stopes in the back of this level have fallen off a little in value since the last inst. The new discovery at surface is slightly improved. We have been unable to push on as fast as I could wish on account of the weather being so disagreeable; it has been raining every day during the past fortnight.—No. 3 Level, East and West: There is nothing new to report, the stopes, &c., are producing the usual quantities of ore.—St. Amelie: This level is cleared, and the tramway laid to the first stope. Tramway commenced yesterday. The lode is cut through for a width of 3 metres, and will produce fully 15 ft. cwt. of lode and blende per cubic metre. As soon as the debris is cleared I shall be in a position to put more men to work in this level. Since the 1st inst. we have sent to the dressing-floors a little over 700 tons of crude ore, which we estimate to produce 70 tons of lead and 195 tons of blende marketable ores; thus you will see that the stuff is nearly 35 per cent. We have not broken quite so much as what has been sent to the floors, having had a great deal of heavy timbering during the past fortnight. The cable is working well, and we hope to continue to increase the output.

**ST. JOHN DEL REY.**—Telegram from Morro Velho, dated Rio de Janeiro, June 22: Produce, 11 days, first division of June, 4250 oitavas; value, 2421 1/2; yield, 2 1/2 oitavas per ton; loss for the month, 100 oitavas.

**UNITED MEXICAN.**—Mr. Hay, May 19: Mine of San Cayetano de la Ovejera: In the frente of San Juan west the ore is spread to the bajo, and though we continue to drive this end in the same direction as hitherto we have begun a cross-cut to the bajo to find out how broad the lode is. So far the lode measures 2-80 metres in width, of which 1-35 metres are in ore of a fair quality. It has produced this week 99 1/2 cargoes of four classes. We have begun a rebajo in the gallery of Santa Rosa, which has produced 18 cargoes of good ore sent to Duran. In the frente No. 1 of San Andres east the ore having completely given out we have begun a diagonal rise to communicate with San Juan making a road by which the men can walk instead of going up and down the winzes. In the frente No. 2 of San Andres east the lode in this end has a width of 1-05 metres all in ore ramified. We have sent 23 1/2 cargoes to Duran. In the frente of No. 3 west the lode measures 85 centimetres, and of these 15 centimetres are in ore. The remittance to Duran this week was 6 1/2 cargoes. In the Pozo No. 1 of San Andres we work on 90 centimetres of pretty good ore, and have sent to Duran this week 17 1/2 cargoes. In the Pozo No. 2 of San Andres the lode we have been working on hitherto is reduced to 45 centimetres of good ore, but we have found another cuerpo to the bajo, measuring 80 centimetres of fair ore. We remitted 23 1/2 cargoes from this winze. We have finished stopping down the ore of the contralode of San Andres which has given us this week 25 1/2 cargoes sent to Duran. The ordinary ore from all the workings amounted to 175 1/2 cargoes, making, therefore a remittance from the mine of San Cayetano to Duran of 387 1/2. To-day 3 1/2 cargoes have been sent to Duran to be accounted for next week. Returns from the mine of San Cayetano de la Ovejera for one week to May 12, 1883, \$5889-65; output, \$1513-75.

**YORKE PENINSULA.**—May 7: Kurilla Lode: The 80 is driven 15 fms. 1 ft. east of Hall's shaft. The lode which produced paying ore for some distance from the shaft is now comparatively poor. It is hardly likely that paying ore will be met with until reaching the cross-course 10 fms. further east. At the 67 east, on the south part of the lode, four men are driving, the lode being worth 1 1/2 ton of ore of 18 per cent. The winze below the 55 east, on the north part, is holed to the 67. On driving the 67 from Hall's shaft the ore did not hold good as far east as was expected. This winze has disclosed the lode lying to the north of the 67, and to be worth 2 1/2 tons of 15 per cent. ore per fathom. At the 55, in new section No. 398, four men are driving east. This drifage has passed through what may be called the middle run of ore, but has not reached the third, recently discovered at the 25, and ore may be looked for shortly. This drifage is also on the south part of the lode. The winze sinking below the 55 east, on the south part, is not yet holed, but will be in a few days; the lode is worth 1 ton of 16 per cent. ore per fathom. Six men continue to drive the 32, on the south part, eastward in 398, the lode being worth 3 tons of 15 per cent. ore per fathom. At the 25, where 15 men were driving west and east of Nos. 1 and 2 cross-outs (in 398), the intervening space is driven through, and now four men are driving west of No. 1, the lode being worth 2 1/2 tons of 15 per cent. ore, and four men driving east of No. 2, the lode being worth 2 tons of 16 per cent. ore. A considerable stretch of ore ground is laid open in this 25. The cross-cut south from the 20 (in No. 398) has intersected a branch or cañter lode, running midway between south and west. The ore is of good quality, and the yield for the short length exposed to view is equal to 3 tons of 16 per cent. ore per fathom. Whether this is a new lode, or only a part of the Kurilla lode displaced by disordered strata, is as yet by no means certain. The occurrence is important, as showing the mineralised condition of the rocks in which we are mining, as well as the possibility of its being a connecting link or bar with another parallel lode still further south. I have two men driving south at the 10 to ascertain if this lode rises to that level. Below the 10 (in 398) a winze is sunk 4 fms. on the branch discovered south of Gurner's shaft some time ago, when the water prevented sinking further. I am now driving on a branch of ore at the 20, east of the said cross-cut (in No. 398) to let down the water from the said winze, about which, at the 10, a considerable quantity of water will be then available. A winze is just commenced to sink, by four men, below the 15 to hole to the 25, west of No. 1 cross-cut (in 398). The winze below the 15 is holed to the rise in the 25 (in 398), and the deposit laid open for stopping. The new hauling shaft is holed to the 25, and well timbered, and the stuff is being discharged through it. Showing how vigorously exploratory work has been carried on to prepare the lode for stopping, I may mention that up to the end of April 32 men were kept at that work. Stopping is being done on this lode on tutwork and tribute, by 33 men, a number out of proportion to the exploratory work, but, however, be reversed in the early future, and a greater advantage gained. Since the company acquired section 398, the dead work done thereon has pressed very heavily on their finances; it is pleasing, however, to say that it has now become self-supporting, and will shortly yield still more ore. Operating vigorously on this part of the mine has been of the highest importance, and it will be regarded in the future as the best thing yet done by this company to lay open an extensive mine that will be worked for many years to come; and will, if a moderately good price is obtainable for copper, pay a good interest on the money so spent, while it will help to meet the water charges, which will not increase in proportion to the length and productiveness of the lodes so laid open.—Morphett's Lode: The driving of the 67, east of the tunnel, is temporarily suspended while the men are sinking a winze from the 55 to ventilate it and increase the number of stopes. The reason for doing this is the great length of the drifage, and the impossibility of the stopers overtaking the drivers. While we have laid open a great deal of paying lode here, the best part yet lies further east, where, above the 55, the best stopes are being worked; 32 men are employed stopping on tutwork and tribute on this lode. In 398, south of the Kurilla lode, where a drifage at the depth of 8 fms. from the surface extends a considerable distance, two men are working on tribute at 10 ft. in 17. This was a discovery made a considerable time ago, and some small deposits of ore were found, but not sufficient to pay. I now think, however, that the chances of its making ore are fair and reasonable, and that it may be regarded as of value for a future day. The lode lies parallel to the Kurilla lode, and it has been traced far enough to lead to the opinion that it is another distinct and proper lode. Ore Returns: There were raised during April 466 tons of 14 1/2 per cent.; there were sold in the colony 365 tons; dispatched for shipment to England 175 tons, and there remained on hand at the mine 1629 tons of 14 per cent.

**POLROSE MINE.**—Fair progress is being made in sinking the engine-shaft, which is now about 3 fathoms below the 112. The lode, which is about 2 1/2 ft. wide, contains a mass of mundic, and has done so for the last few fathoms. In the south side of the shaft there is a branch 15 in. wide, also principally mundic, and which will form a junction with the lode in the shaft in a little further sinking. Mundic is generally found to be the forerunner of ore, and if the extent of the latter is in proportion to the quantity of the former there ought to be a large deposit of tin not far distant in Polrose. It is thought that a short time will solve this interesting problem.

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## LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
June 19—	Fordale	120	£10 2 6	Quirk, Barton, & Co.
21—	Van	180	9 8	Walker, Parker, & Co.
—	Alito	20	9 11 6	ditto



## WATSON BROTHERS' MINING CIRCULAR.

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We have upheld, and shall always uphold, that the Cost-book System, when properly conducted and honestly looked after, is the very best system for conducting Cornish mines upon; and where there are committees in London who look after the accounts and all things incidental to the mines every month, shareholders may rely with safety upon them. As for the forgery of shares, which has been made so much of in regard to Dolcoath, the same thing has more than once happened in Limited companies, and may as easily happen again. As a rule, too, Cost-book mines pay when Limited companies fail, for the simple reason that the latter are too often heavily freighted with promotion money and vendors' shares; and half are stopped for want of means when on the point, it may be, of success. In a Cost-book mine money is only called up as it is required; and any shareholder who does not care to go on, may, as we showed a week or two ago, relinquish his shares and free himself from further liability. Again, in the year 1860, a great boon was obtained for the mining interest in the transference of shares in Cost-book mines, in which we took an active part—that a sixpenny stamp in the usual Cost-book transfer notice should transfer any amount of stock, while Limited companies have to pay an *ad valorem* duty, which at times comes very heavy. At first it was proposed by the Government that 6d. should be paid on each share transferred, but Mr. Watson wrote the Chancellor of the Exchequer on this head, and received the following reply, which was published in the *Mining Journal* at the time:—

"Inland Revenue, Somerset House, March 6, 1860.

"Sir,—With reference to your letter dated the 22nd ult., addressed to the Chancellor of the Exchequer on the subject of the proposed stamp duty upon 'Cost-Book Notices,' I am directed to acquaint you that it is not intended that the stamp duty should be made payable in respect of every share, but only in the notice.

"I am, &c.,

(Signed)

"T. Sargent.

"To J. Y. Watson, Esq., F.G.S."

Thus in a Cost-book company: 1000l. worth of shares, or any other amount, can be transferred for 6d. It should be added that no mines can be conducted on the Cost-book System except they are in Cornwall or Devon.

The new issue of shares at D'Eresby Mountain are fully paid up, and no further liability attaches to them.

The meeting of East Blue Hills passed off well. The committee came before the shareholders with 1167l. 13s. 5d. in hand, without a single liability, while from above the adit over 2000l. worth of tin has been sold. We hope the mine will continue to make profits above the adit, which it will if the water supply for stamping does not fall short during the summer months, and the result of erecting an engine, wisely determined upon, may be to open out one of the best mines in the district. There are 160 shareholders, and shares are well held.

North Blue Hills meeting also passed off well. There is a balance in hand after paying for engine, &c., of 783l. 2s. 10d., and in a very short time the bottom of the shaft will be seen, and if the copper said to be there (by people who discovered it nearly 40 years ago) is found, the shareholders, who all came in at par, will have cause to congratulate themselves.

In 1881 there was an issue of 3072 shares in D'Eresby Mountain, at 1l. per share. We and others took our full proportion *pro rata* of these 1l. shares. But some shareholders on deceased and other accounts did not, and 706 were left on hand unissued, and it is this circumstance that has necessitated the present issue as a bonus to others at 5s. Those, therefore, who did not take up their *pro rata* proportion of the 1l. shares would, we apprehend, have to do so before they could apply for any of the present issue.

At the 90 west at Prince of Wales the No. 1 north lode, which is 3 ft. wide, composed of beautiful soft pryan and good patches of copper ore, is forming a junction with the Prince of Wales lode, which together are now 9 ft. wide. As great courses of ore are generally found at junctions, we hope something good will soon be found here.

We hold over 1000 shares in Langford, and take our proportion of the unissued shares. The directors hold 1000 each. Our correspondent (indeed every shareholder) should apply for his proportion, as the money must be had, and a good discovery may soon be made. The shares were all issued originally at 10s. each without premium or promotion money; the price is very little for such a speculation.

The sale of Crebor ore (which was estimated at 1483l. 15s. 6d.) has brought 1528l. 10s. 6d. The mine has also sold 250 tons of arsenical mundic at a good price.

**RESOURCES OF THE ROCKY MOUNTAINS, AND THE AUSTRALIAN GOLD FIELDS.**—A party of tourists is about being formed of gentlemen to make a tour through the regions of the Rocky Mountains, to examine its vast mineral resources, and such as desire to proceed from thence to New Zealand and Australia, making a thorough practical examination of the chief gold fields of America and the Australian colonies. An important financial and practical business undertaking in connection with American and Australian mining is being inaugurated, with which the party of tourists will be associated, and it is with the object of imparting practical information and affording a pleasant opportunity of a personal inspection of the leading mining districts, as also the principal mines and the various large plants of machinery now in use for the crushing and smelting of ores, that the projectors of this interesting undertaking has determined to inaugurate the expedition. The Denver Exposition, at which a magnificent display of mineral exhibits will be on view, will be one of the great sources of attraction, and where practical information will be acquired as to the vast mineral resources of the Western States of America. To gentlemen interested in legitimate and profitable gold mining, and desirous of its more practical development, this expedition will afford an agreeable opportunity, not only of witnessing the beautiful scenery of the Rocky Mountains, New Zealand, and Australia, but of gaining practical knowledge of the various resources of the countries travelled through. Mr. Thomas Cornish, the well-known authority on gold mining, is organising the expedition.

**MALLEABLE NICKEL.**—To prevent the injurious effects of the oxygen usually held in solution in greater or less quantity by pure nickel after melting and casting, and which renders the metal brittle, it is necessary to incorporate in the melted nickel some substance which has a strong affinity for oxygen and also for the nickel itself. Mr. Jules Garnier finds that phosphorus serves both of these purposes very satisfactorily, producing effects analogous to those of carbon in iron. If the phosphorus does not exceed 3-16th of 1 per cent. the nickel is soft and very malleable; above this quantity the hardness increases at the expense of the malleability. Phosphorized nickel, when alloyed with copper, zinc, or iron, gives results which are far superior to those that are obtained from the same nickel when not phosphorized. By means of the phosphorus, Garnier has been able to alloy nickel and iron in all proportions and always to obtain soft and malleable products. The contradictions of illustrious chemists are thus explained, some saying that such alloys were brittle, others that they were malleable; the latter had alloyed the nickel to phosphorized iron.

**EXPLOSIONS OF GAS IN COAL BUNKERS.**—In a pamphlet bearing this title, issued through Messrs. King and Son, of Westminster, Mr. Thos. Rowan, gives a critical examination of the report of the Admiralty Committee appointed to enquire into the subject. The question is one to which Mr. Rowan has given much attention.

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## COAL MINES REGULATION ACT, 1872.

EXAMINATION FOR MANAGERS' CERTIFICATES OF COMPETENCY.

DISTRICT UNDER THE CHARGE OF THOMAS BELL, Esq.,  
H.M. INSPECTOR OF MINES.

**NOTICE IS HEREBY GIVEN,** that an EXAMINATION for MANAGERS' CERTIFICATES OF COMPETENCY, under the above-named Act, will be HELD on the 30th and 31st day of July, and CANDIDATES INTENDING TO PRESENT THEMSELVES AT SUCH EXAMINATION must, on or before the 24th day of July next, notify such intention to the Secretary of the Board of the above-mentioned District, from whom all information as to particulars can be obtained.

By order of the Board,

G. W. BARTLETT, Secretary.

Address: Cleveland Parade, Darlington.  
N.B.—Persons who do not reside within the District are equally eligible for examination with those who do.

## TIN SMELTER WANTED.

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THE CROESOR NEW SLATE COMPANY (LIMITED).  
MESSRS. WM. DEW AND SON WILL SELL, BY AUCTION,  
at the Sportsman Hotel, Portmadoc, Carnarvonshire, on Friday, the 29th of June, 1883, at Two o'clock P.M., all that very  
VALUABLE LEASEHOLD SLATE AND SLAB QUARRY

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Situate at Llanckoth, in the County of Merioneth, together with the Manager's House, Quarrymen's Cottages, and the Mills, Barracks, and other Buildings belonging thereto for the residue of a term of 40 years from the 1st of January, 1876.

The sale will include all PLANT and MACHINERY, including inclines, rails, TWO STEAM ENGINES, &c., &c.

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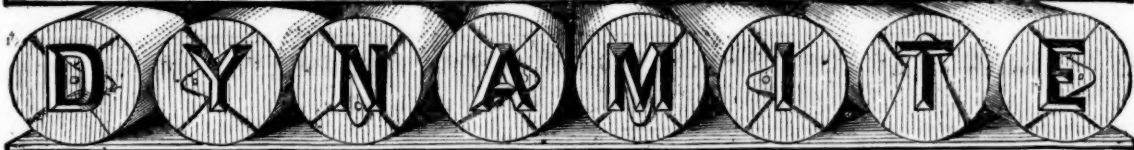
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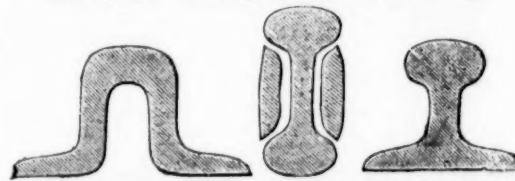
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Shares.	Paid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.
3200 Blue Hills, t, St. Agnes	4 6	8	3 1/2	10 4	0 2	0 May 1881
4000 Carn Brea, t, Illogan	11 7	11	8	32 11	0 10	0 Nov. 1881
4000 Craignant Bach, t, Cardigan	5 0	0	0	5 0	0 0	0 Nov. 1882
10240 Devon Gr. Consols, t, Tavistock	1 0	0	0	1 0	0 0	0 Dec. 1880
4296 Dolcoath, t, Camborne	10 14	10	5 7 1/2	52 1/2	0 1	0 Apr. 1883
4000 East Pool, t, Illogan	0 9	44	40	42 1/2	0 3	0 June 1883
12000 Great Holway, t, Illogan	5 0	0	0	5 0	0 0	0 Feb. 1882
12000 Great Lacey, t, Illogan	4 0	0	0	4 0	0 0	0 Apr. 1883
6400 Green Hurth, t, Durham	0 6	0	0	6 0	0 0	0 Nov. 1882
20000 Grogwion, t, Cardigan	2 0	0	0	2 0	0 0	0 June 1883
9830 Grogwion (Clitters), t, c	2 2	0	0	2 2	0 0	0 Mar. 1882
2800 Isle of Man, t, Isle of Man	25 0	0	0	25 0	0 0	0 Sept. 1882
4000 Killfret, t, Chacewater	4 3	6	2 1/2	2 1/2	0 0	0 June 1883
4000 Leadhills, t, Lanarkshire	6 0	0	0	6 0	0 0	0 June 1883
4000 Lisburne, t, Cardigan	18 0	0	0	18 0	0 0	0 May 1883
10000 McLane, t, Hayle	2 0	0	0	2 0	0 0	0 May 1883
9000 Minera Mining Co., t, Wrexham	5 0	0	0	5 0	0 0	0 Feb. 1883
20000 Mining Co. of Ireland, t, c	7 0	0	0	7 0	0 0	0 June 1880
1829 North Hendre, t, Wales	2 10	0	0	2 10	0 0	0 Nov. 1882
1846 Ditto	1 6	0	0	1 6	0 0	0 Nov. 1882
3000 North Levant, t, St. Just	13 6	0	0	13 6	0 0	0 Feb. 1881
4740 Penhalla, t, St. Agnes	4 0	0	0	4 0	0 0	0 June 1883
12000 Phoenix United, t, c, Llaninhorne	7 10	0	0	7 10	0 0	0 June 1883
12000 Roman Gravel, t, St. Agnes	7 10	0	0	7 10	0 0	0 June 1883
5000 South Caradon, t, St. Cleer	0 10	0	0	0 10	0 0	0 Jan. 1883
1223 South Condurrow, t, c, Camborne	6 5	6	8 1/2	8 1/2	0 0	0 Apr. 1883
9000 South Darren, t, Cardigan	1 10	0	0	1 10	0 0	0 Apr. 1883
6000 Tincroft, t, c, Pool, Illogan	12 10	0	0	12 10	0 0	0 Dec. 1881
5000 Van, t, Llanidloes	4 0	0	0	4 0	0 0	0 Jan. 1883
2000 West Holway, t, Illogan	1 0	0	0	1 0	0 0	0 Oct. 1881
6000 West Lacey, t, Illogan	0 12	0	0	0 12	0 0	0 Apr. 1882
6000 West Killy, t, St. Agnes	0 12	0	0	0 12	0 0	0 Apr. 1882
12000 Wheel Crebor, t, Tavistock	2 4	0	0	2 4	0 0	0 Nov. 1882
1024 Wheel Eliza Consols, t, St. Austell	18 0	0	0	18 0	0 0	0 Aug. 1882
6000 Wheel Grenville, t, Camborne	15 0	0	0	15 0	0 0	0 Sept. 1882
4295 Wheel Killy, t, St. Agnes	5 12	0	0	5 12	0 0	0 June 1881
3000 Wheel Peavor, t, Redruth	10 1	0	0	10 1	0 0	0 Mar. 1882

## FOREIGN DIVIDEND MINES.

Shares.	Paid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.
35500 Alamosa, t, Spain	2 0	0	0	2 0	0 0	0 Apr. 1883
10000 Almaden, t, Spain	1 0	0	0	1 0	0 0	0 May 1876
20000 Australian, t, St. Australia	7 0	0	0	7 0	0 0	0 Aug. 1882
15000 Birdseye Creek, t, California	1 0	0	0	1 0	0 0	0 Dec. 1882
15000 Breckinridge, t, California	1 0	0	0	1 0	0 0	0 Dec. 1882
30000 California, t, California	1 0	0	0	1 0	0 0	0 Apr. 1883
20000 Cape Copper Mining, t, South Africa	8 0	0	0	8 0	0 0	0 June 1883
65000 Colorado United, t, Colorado	5 0	0	0	5 0	0 0	0 May 1883
60000 Copiapo, t, Chile	3 10	0	0	3 10	0 0	0 June 1883
70000 English & Australian, t, c, St. Austell	2 10	0	0	2 10	0 0	0 Mar. 1883
2000 Eng. Aus., t, Viet. pref. (20000 o.)	1 0	0	0	1 0	0 0	0 Apr. 1882
25000 Fortuna, t, Spain	1 0	0	0	1 0	0 0	0 Apr. 1883
60000 Frontino & Bolivia, t, New Gran.	2 0	0	0	2 0	0 0	0 Apr. 1883
270000 Henriett, t, Leadville, Colorado	1 0	0	0	1 0	0 0	0 Feb. 1883
400000 La Plata, t, Leadville	2 0	0	0	2 0	0 0	0 Oct. 1882
5000 Linares, t, Spain	3 0	0	0	3 0	0 0	0 Apr. 1883
20000 Marbella Iron Ore, t, Spain	10 0	0	0	10 0	0 0	0 June 1882
185164 Mason & Barry, t, Portugal	10 0	0	0	10 0	0 0	0 May 1883
60000 New Quebrada, t, Venezuela	5 0	0	0	5 0	0 0	0 Aug. 1882
1000 Ditto, Debutent	0 10	0	0	0 10	0 0	0 Aug. 1882
50000 Panulillo, t, Chile	4 0	0	0	4 0	0 0	0 Apr. 1883
25000 Pitagui, t, Brazil (in 6000 £1 pd.)	4 0	0	0	4 0	0 0	0 Sept. 1880
1400 Pontbui, t, France	20 0	0	0	20 0	0 0	0 Dec. 1882
100000 Port Phillip, t, Clunes (22 shares)	1 0	0	0	1 0	0 0	0 Feb. 1881
50000 Rara Fortuna, t, Argent. Republic	1 0	0	0	1 0	0 0	0 July 1882
50000 Richmond Consol., t, Nevada	5 0	0	0	5 0	0 0	0 May 1883
24532 Rio Tinto, t, Mortgage Bds., Huella	10 0	0	0	10 0	0 0	0 July 1882
250000 Santa Barbara, t, Brazil	0 10	0	0	0 10	0 0	0 May 1882
120000 Scottish-Australian Mining Co., t	1 0	0	0	1 0	0 0	0 May 1883
80000 Ditto, New	1 0	0	0	1 0	0 0	0 May 1883
22500 Sierra Buttes, t, California	2 0	0	0	2 0	0 0	0 Apr. 1883
40625 Ditto, Plumas Eureka	2 0	0	0	2 0	0 0	0 Apr. 1883
253000 St. John del Rey, t, (25 Stock and multiple deal in)	100 10	0	0	100 10	0 0	0 June 1882
160000 Tambarerry, t, Wynaad	4 0	0	0	4 0	0 0	0 May 1882
91896 Tharsia, t, c, Spain (311000 St. p.)	10 0	0	0	10 0	0 0	0 May 1883
20000 Tolima, t, c, Colombia (A & B shares)	5 0	0	0	5 0	0 0	0 Mar. 1883
25000 Victoria, t, London, g, Australia	1 0	0	0	1 0	0 0	0 Feb. 1881
100000 Victoria (Nevada, U.S.) Deb. Bds.	1 0	0	0	1 0	0 0	0 June 1882
5000 Western Andes, t, Colombia	1 0	0	0	1 0	0 0	0 Mar. 1883
2100 W. Prussian (5500 pref. sh. £10 pd.)	10 0	0	0	10 0	0 0	0 Apr. 1881
54900 Yorke Fen, t, c, South Aust. Pref.	1 0	0	0	1 0	0 0	0 May 1882

Have made calls since last dividend was paid.

## NON-DIVIDEND BRITISH MINES.

Shares.	Paid.	Last wk.	Clos. pr.
25000 Aberdura, t, Denbigh	1 10	0	1 1/2
30000 Alston United, t, Cumberland	1 0	0	0
12000 Anderton, t, c, Devonshire	1 0	0	1 1/2
12000 Assheton, t, Carnarvonshire	5 0	0	0
12000 Bedford Unit, t, c, Tavis (21 hab.)	0 14	0	1 1/2
30000 Bodrhydd, t, Denbighshire	1 0	0	0
10000 Brada, t, c, Isle of Man	1 0	0	0
30000 British, t, s, Wrexham	1 0	0	1 1/2
30000 Buena Consols, t, Flintshire	1 0	0	1 1/2
12000 Bwch United, t, Cardigan	1 0	0	1 1/2
12000 Collacombe Consols, t, c, Llanrwst	0 2	6	1/2
50000 Carn Camborne, t, c, Camborne	1 0	0	1 1/2
20000 Carnarvon, t, c	1 0	0	1 1/2
37500 Carnarvonshire Cons., t, Llanrwst	2 0	0	1 1/2
20000 Central, t, c, Gwynedd	1 1	6	1
20000 Central Ffordle, t, c, Isle of Man	1 17	6	1
25000 Coed-y-Fedw & Pandy-Burth, t, c	1 0	0	1 1/2
2450 Cook's Kitchen, t, Illogan	30 14	9	30
10000 Cornwall Great Cons. (4500 issued)	1 0	0	0
30000 Creiglog, t, Denbighshire	0 17	0	3/4
6400 Crook Burn, t, Cumberland	0 17	0	3/4
45000 D'Eresby Mountain, t, Llanrwst	0 10	0	3/4
12000 Derwent, t, Durham	4 0	0	1 1/2
60000 Devon Friendship, t, c, Tavisstock	1 0	0	6 1/2
12000 Devon Great United (21 shares)	1 5	0	1 1/2
50000 Drakewalls, t, c, Calstock	0 15	0	3/4
12000 East Blue Hills, t, St. Agnes	0 5	0	8 1/2
6000 East Botallack, t, St. Just	1 0	0	1 1/2
6144 East Caradon, t, St. Cleer	1 19	0	3/4
4000 East Chiverton, t, Perranzabuloe	10 17	0	3/4
30000 East Craven Moor, t, Pateley Bridge	1 0	0	3/4
15000 East Devon Cons., t, c, Buckfastleigh	2 0	0	2 1/2
30000 East Herodsfoot, t, Liskeard	1 0	0	1 1/2
20000 East Long Lake, t, Wales	1 0	0	1 1/2
25500 East Roman Gravel, t, Salop	1 0	0	3/4
25000 Godevieve, t, c, Marazion	5 0	0	0
18000 East Van, t, Llanidloes	5 0	0	0
2048 East Wheel Lovell, t, Helston	17 6	1	1 1/2
100000 East Wheel Rose, t, s, Newlyn East	1 0	0	3/4
12500 Frongoch, t, Cardigan (11000 sh. iss.)	2 0	0	1 1/2
12000 Gawton, t, c, Tavistock	2 0	0	3/4
40000 Glasg. Car., t, c, 30000 sh. 41 pd., 10000 15s. pd.	1 0	0	3/4
30000 Gobbett, t, c, Devon	1 0	0	3/4
10000 Gogardas, t, c, Carnarvon	1 0	0	1 1/2
30000 Goginan, t, c, Cardigan	1 0	0	3/4
25000 Gorse and Merlyn Cons., t, c, Llanidloes	1 0	0	1 1/2
20000 Great Dyfford (1000 sh. issued)	1 0	0	2 1/2
6000 Great West Chiverton, t, St. Agnes	0 5	0	3/4
6000 Great Wheel Worthy, t, Cornwall	1 0	0	0
10000 Gwyn-y-Mynydd, t, c, Pateley Bridge	1 0	0	3/4
7000 Gwydyr Amal, t, c, Llanidloes	1 0	0	0
12000 Herodsfoot, t, near Liskeard	1 0	0	6 1/2
18000 Hington Down, t, Calstock	0 13	0	3/4
20000 Kirke Michael, t, c, 20000 unissued	0 10	0	3/4
25000 Kit Hill Gr. Cons., t, c, 22 sh.	0 17	0	3/4
15000 Lady Ann, t, Llanidloes	1 0	0	3/4
25000 Langford, t, c, Callington	0 10	0	3/4
15000 Llanidloes, t, Wales	1 0	0	0
5120 Lovell, t, Wendron	0 16	0	3/4
8000 Marke Valley, t, Llanidloes	7 7	0	1
18000 Marazion, t, c, Calstock	3 15	10	0
20000 Kirke Michael, t, c, 20000 unissued	0 10	0	3/4
25000 Kit Hill Gr. Cons., t, c, 22 sh.	0 17	0	3/4
15000 Lady Ann, t, Llanidloes	1 0	0	3/4
25000 Langford, t, c, Callington	0 10	0	3/4
15000 Llanidloes, t, Wales	1 0	0	0
5120 Lovell, t, Wendron	0 16	0	3/4
8000 Marke Valley, t, Llanidloes	7 7	0	1
18000 Marazion, t, c, Calstock	3 15	10	0
20000 Kirke Michael, t, c, 20000 unissued	0 10	0	3/4
25000 Kit Hill Gr. Cons., t, c, 22 sh.	0 17	0	3/4
15000 Lady Ann, t, Llanidloes	1 0	0	3/4
25000 Langford, t, c, Callington	0 10	0	3/4
15000 Llanidloes, t, Wales	1 0	0	0
5120 Lovell, t, Wendron	0 16	0	3/4
8000 Marke Valley, t, Llanidloes	7 7	0	1
18000 Marazion, t, c, Calstock	3 15	10	0
20000 Kirke Michael, t, c, 20000 unissued	0 10	0	3/4
25000 Kit Hill Gr. Cons., t, c, 22 sh.	0 17	0	3/4
15000 Lady Ann, t, Llanidloes	1 0	0	3/4
25000 Langford, t, c, Callington	0 10	0	3/4
15000 Llanidloes, t, Wales	1 0	0	0
5120 Lovell, t, Wendron	0 16	0	3/4
8000 Marke Valley, t, Llanidloes	7 7	0	1
18000 Marazion, t, c, Calstock	3 15	10	0
20000 Kirke Michael, t, c, 20000 unissued	0 10	0	3/4
25000 Kit Hill Gr. Cons., t, c, 22 sh.	0 17	0	3/4
15000 Lady Ann, t, Llanidloes	1 0	0	3/4
25000 Langford, t, c, Callington	0 10	0	3/4
15000 Llanidloes, t, Wales	1 0	0	0
5120 Lovell, t, Wendron	0 16	0	3/4
8000 Marke Valley, t, Llanidloes	7 7	0	1
18000 Marazion, t, c, Calstock	3 15	10	0
20000 Kirke Michael, t, c, 20000 unissued	0 10	0	3/4
25000 Kit Hill Gr. Cons., t, c, 22 sh.	0 17	0	3/4
15000 Lady Ann, t, Llanidloes	1 0	0	3/4
25000 Langford, t, c, Callington	0 10	0	3/4
15000 Llanidloes, t, Wales	1 0	0	0
5120 Lovell, t, Wendron	0 16	0	3/4
8000 Marke Valley, t, Llanidloes	7 7	0	1
18000 Marazion, t, c, Calstock	3 15	10	0
20000 Kirke Michael, t, c, 20000 unissued	0 10	0	3/4
25000 Kit Hill Gr. Cons., t, c, 22 sh.	0 17	0	3/4
15000 Lady Ann, t, Llanidloes	1 0	0	3/4
25000 Langford, t, c, Callington	0 10	0	3/4
15000 Llanidloes, t, Wales	1 0	0	0
5120 Lovell, t, Wendron	0 16	0	3/4
8000 Marke Valley, t, Llanidloes	7 7	0	1
18000 Marazion, t, c, Calstock	3 15	10	0
20000 Kirke Michael, t, c, 20000 unissued	0 10	0	3/4
25000 Kit Hill Gr. Cons., t, c, 22 sh.	0 17	0	3/4
15000 Lady Ann, t, Llanidloes	1 0	0	3/4
25000 Langford, t, c, Callington	0 10	0	3/4
15000 Llanidloes, t, Wales	1 0	0	0
5120 Lovell, t, Wendron	0 16	0	3/4
8000 Marke Valley, t, Llanidloes	7 7	0	1
18000 Marazion, t, c, Calstock	3 15	10	0
20000 Kirke Michael, t, c, 20000 unissued	0 10	0	3/4
25000 Kit Hill Gr. Cons., t, c, 22 sh.	0 17	0	3/4
15000 Lady Ann, t, Llanidloes	1 0	0	3/4
25000 Langford, t, c, Callington	0 10	0	3/4
15000 Llanidloes, t, Wales	1 0	0	0
5120 Lovell, t, Wendron	0 16	0	3/4